



South Coast Air Quality Management District



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June 26, 2019

Jennifer Williams
US Environmental Protection Agency, Region 9
Southern California Field Office
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Dear Jennifer:

South Coast Air Quality Management District staff is pleased announce availability of the 2019 Annual Air Quality Monitoring Network Plan for your review. The Annual Network Plan can be downloaded at:

<http://www.aqmd.gov/home/air-quality/clean-air-plans/monitoring-network-plan>

Alternatively, hardcopies of the report can be mailed at your request.

A public workshop was conducted on May 23, 2019 to present the 2019 plan. The draft plan was made available online May 23, 2019 for 30 days to allow for public comment per Federal Regulations. There were no comments received from workshop participants or during the comment period.

This report fulfills the Federal Regulatory requirement for an annual review of the Air Quality Monitoring Network. The plan recognizes and reports needs for additions, relocations, or terminations of monitoring sites and instrumentation. It includes a review of actions taken during the 2018-2019 fiscal year and plans for action in the year ahead.

Thank you for your consideration, if you have any questions please contact me.

Sincerely,

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Clean Air Is Every Body's Business



South Coast
AQMD

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ANNUAL AIR QUALITY MONITORING NETWORK PLAN

July 1, 2019

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INTRODUCTION

An annual review of the Air Quality Monitoring Network is required by Federal Regulations as a means to identify and report needs for additions, relocations, or terminations of monitoring sites or instrumentation. This report describes the network of ambient air quality monitors in the jurisdiction of and operated by the South Coast Air Quality Management District (South Coast AQMD). It includes a review of actions taken during the 2018-2019 fiscal year and plans for action in the year ahead. This plan addresses the requirement for an annual network plan as listed in Title 40, Part 58, Section 10 of the Code of Federal Regulations (40 CFR § 58.10). Regulations require the report be submitted to the U.S. Environmental Protection Agency (U.S. EPA) by July 1 of each year after a 30 day public comment period. All monitors meet the requirement of appendices A, B, C, D, and E as required in 40 CFR § 58.10(a)(1) where applicable.

The South Coast AQMD staff, along with the California Air Resources Board (CARB), conducted an extensive review of the air monitoring sites in the South Coast Air Basin (Basin) in late 1980. During the review, State and Local Air Monitoring Stations (SLAMS) designations, site type, and spatial scales of representativeness were assigned to the criteria pollutants monitored at each site. Since that time, U.S. EPA Region IX and CARB staff visited selected sites to confirm compliance with applicable siting criteria and related requirements. The most recent site visits occurred in July, 2016 to conduct a comprehensive Technical System Audit (TSA) of the ambient air monitoring network. It is anticipated U.S. EPA will return to conduct a TSA during spring, 2020. Each year, South Coast AQMD staff conducts an annual review of its air monitoring network and submits it to U.S. EPA. The review process focuses on current and future network air monitoring strategies and network changes are made in consultation with U.S. EPA and CARB. When re-location of monitoring sites are required, site reports are updated in U.S. EPA's Air Quality System (AQS) to document compliance with established siting criteria for the new locations.

Public Comments

Pursuant to Federal regulations, a draft plan was made available for public inspection from May 23 through June 23, 2019 for a comment period of 30 days. During this time, there were no public comments received.

Hard copies of the final document were available June 28, 2019 at the South Coast AQMD's Public Information Desk in Diamond Bar, CA. The final document is available on the South Coast AQMD website beginning June, 28, 2019 in the drop down menu under the "Air Quality", "Clean Air Plans" and "Air Monitoring Network Plan." (<http://www.aqmd.gov/home/air-quality/clean-air-plans/monitoring-network-plan>). An electronic version of the document was made available to U.S. EPA June 28, 2019.

Network Design

The South Coast AQMD operates 37 permanent monitoring stations and 4 single-pollutant source impact Lead (Pb) air monitoring sites in the Basin and a portion of the Salton Sea Air Basin in Coachella Valley. This area includes Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The most recent sites added were part of the near road monitoring network at Ontario Etiwanda and Route 60; Long Beach Route 710 and Anaheim

Route 5. The newest source impact Pb sites were added in January 2010 as required by U.S. EPA regulation. Table 1 provides a list of monitoring locations, U.S. EPA AQS site codes, and the pollutants measured at each site. Table 2 provides the spatial scale and the site type for each monitor at all sites. Table 3 describes the monitoring purpose for the monitors at each site. Table 4 describes the site type, spatial scale and monitoring purpose for continuous particulate analyzers at each site. A requirement of the annual network plan, the *monitoring purpose* is the reason why a certain pollutant is being measured at a certain site.

A list and description of monitoring purposes are provided below and portions are adapted from the CARB annual network plan for 2007.

Background Level monitoring is used to determine general background levels of air pollutants as they enter the Basin.

High Concentration monitoring is conducted at sites to determine the highest concentration of an air pollutant in an area within the monitoring network. A monitoring network may have multiple high concentration sites (i.e., due to varying meteorology year to year).

Pollutant Transport is the movement of pollutants between air basins or areas within an air basin. Transport monitoring is used to assess and mitigate upwind areas when transported pollutant affects neighboring downwind areas. Also, transport monitoring is used to determine the extent of regional pollutant transport among populated areas and to rural areas.

Population Exposure monitoring is conducted to represent the air pollutant concentrations that a populated area is exposed to.

Representative Concentration monitoring is conducted to represent the air quality concentrations for a pollutant expected to be similar throughout a geographical area. These sites do not necessarily indicate the highest concentrations in the area for a particular pollutant.

Source Impact monitoring is used to determine the impact of significant sources or source categories of air quality emissions on ambient air quality. The air pollutant sources may be stationary or mobile.

Trend Analysis monitoring is useful for comparing and analyzing air pollution concentrations over time. Usually, trend analyses can be used to assess the progress in improving air quality for an area over a period of many years.

Site Comparison monitoring is used to assess the effect on measured pollutant levels of moving a monitoring location a short distance (usually less than two miles). Some monitoring stations become no longer usable due to development, change of lease terms, or eviction. In these cases, attempts are made to conduct concurrent monitoring at the old and new site for a period of at least one year in order to compare pollutant concentrations.

Real Time Reporting/Modeling is used to provide data to U.S. EPA's AIRNOW system which reports conditions for air pollutants on a real time basis to the general public. Data is also used to provide accurate and timely air quality forecast guidance to residents of the Basin.

Multiple purposes for measuring a pollutant at a particular site are possible. There is some overlap between site type and monitoring purposes as defined by U.S. EPA and given in Tables 2, 3, and 4.

TABLE 1. List of Monitoring Sites

	Location	AQS No.	Criteria Pollutants Monitored	Start Date
1	Anaheim	060590007	CO, NO2, O3, PM10, PM2.5	08/01
2	Anaheim Route 5 Near Road	060590008	CO, NO2	01/14
3	ATSF (Exide)	060371406	Pb	01/99
4	Azusa	060370002	CO, NO2, O3, PM10, PM2.5	01/57
5	Banning Airport	060650012	NO2, O3, PM10, PM2.5	04/97
6	Big Bear	060718001	PM2.5	02/99
7	Central San Bernardino Mountains	060710005	O3, PM10, PM2.5	10/73
8	Closet World (Quemetco)	060371404	Pb	10/08
9	Compton	060371302	CO, NO2, O3, Pb, PM2.5	01/04
10	Fontana	060712002	CO, NO2, SO2, O3, PM10, PM2.5	08/81
11	Glendora	060370016	CO, NO2, O3, PM10, PM2.5	08/80
12	Indio	060652002	O3, PM10, PM2.5	01/83
13	La Habra	060595001	CO, NO2, O3	08/60
14	Lake Elsinore	060659001	CO, NO2, O3, PM10, PM2.5	06/87
15	LAX Hastings	060375005	CO, NO2, O3, PM10, Pb	04/04
16	Long Beach (Hudson)	060374006	CO, NO2, SO2, O3, PM10	01/10
17	Long Beach Route 710 Near Road	060374008	NO2, PM2.5	01/15
18	Long Beach (North)	060374002	PM2.5	10/62
19	Long Beach (South)	060374004	PM10, Pb, PM2.5	06/03
20	Los Angeles (Main St.)	060371103	CO, NO2, SO2, O3, PM10, Pb, PM2.5	09/79
21	Mecca (Saul Martinez)	060652005	PM10	01/11
22	Mira Loma (Van Buren)	060658005	CO, NO2, O3, PM10, PM2.5	11/05
23	Mission Viejo	060592022	CO, O3, PM10, PM2.5	06/99
24	Norco	060650003	PM10	12/80
25	Ontario Etiwanda Near Road	060710026	CO, NO2	06/14
26	Ontario Route 60 Near Road	060710027	NO2, PM2.5	01/15
27	Palm Springs	060655001	CO, NO2, O3, PM10, PM2.5	04/71
28	Pasadena	060372005	CO, NO2, O3, PM2.5	04/82
29	Perris	060656001	O3, PM10	05/73
30	Pico Rivera #2	060371602	CO, NO2, O3, PM10, Pb, PM2.5	09/05
31	Pomona	060371701	CO, NO2, O3	06/65
32	Redlands	060714003	O3, PM10	09/86
33	Rehrig (Exide)	060371405	Pb	11/07
34	Reseda	060371201	CO, NO2, O3, PM2.5	03/65
35	Rubidoux	060658001	CO, NO2, SO2, O3, PM10, Pb, PM2.5	09/72
36	San Bernardino	060719004	CO, NO2, O3, PM10, Pb, PM2.5	05/86
37	Santa Clarita	060376012	CO, NO2, O3, PM10, PM2.5	05/01
38	Temecula	060650016	O3, PM2.5	06/10
39	Uddelholm (Trojan Battery)	060371403	Pb	11/92
40	Upland	060711004	CO, NO2, O3, PM10, PM2.5	03/73
41	West Los Angeles	060370113	CO, NO2, O3	05/84

TABLE 2. FRM Criteria Pollutant Spatial Scales and Site Type

SPATIAL SCALE

MI – Microscale
MS – Middle Scale
NS – Neighborhood Scale
US – Urban Scale

SITE TYPE

HC – Highest Concentration
PE – Population Exposure
IM – Source Oriented (Impact)
BK – General Background

	Location	CO	NO2	SO2	O3	Manual PM10	Manual PM2.5	Pb
1	Anaheim	NS/PE	US/PE		NS/PE	NS/HC	NS/PE	
2	Anaheim Route 5 Near Road	MI/HC	MI/HC					
3	ATSF (Exide)							MI/IM
4	Azusa	NS/PE	US/PE		US/HC	NS/PE	NS/PE	
5	Banning Airport		NS/PE		NS/PE	NS/PE		
6	Big Bear						NS/PE	
7	Central San Bernardino Mountains				NS/HC	NS/PE		
8	Closet World (Quemetco)							MI/IM
9	Compton	MS/HC	MS/PE		NS/PE		NS/HC	NS/PE
10	Fontana	NS/PE	US/PE	NS/PE	US/PE	NS/HC/PE	NS/PE	
11	Glendora	NS/PE	NS/PE		NS/HC			
12	Indio				NS/PE	NS/HC	NS/PE	
13	La Habra	NS/PE	US/PE		NS/PE			
14	Lake Elsinore	NS/PE	NS/PE		NS/PE			
15	LAX Hastings	MS/PE/BK	MS/PE/BK	NS/PE/BK	NS/PE/BK	NS/PE/BK		NS/PE/BK
16	Long Beach (Hudson)	NS/HC	NS/PE	NS/HC	NS/PE	NS/PE		
17	Long Beach (North)						NS/PE	
18	Long Beach Route 710 Near Road		MI/HC				MI/HC	
19	Los Angeles (Main St.)	NS/PE	NS/HC	NS/PE	NS/PE	NS/PE	NS/PE	NS/PE
20	Mecca (Saul Martinez)					NS/HC/PE		
21	Mira Loma (Van Buren)	NS/PE	NS/PE		NS/PE	NS/HC	NS/HC	
22	Mission Viejo	NS/PE			NS/PE	NS/PE	NS/PE	
23	Norco					NS/PE		
24	Ontario Etiwanda Near Road	MI/HC	MI/HC					
25	Ontario Route 60 Near Road		MI/HC				MI/HC	
26	Palm Springs	NS/PE	NS/PE		NS/PE	NS/PE	NS/PE	
27	Pasadena	MS/PE	MS/HC		NS/PE		NS/PE	
28	Perris				NS/PE	NS/PE		
29	Pico Rivera #2	NS/PE	NS/HC		NS/PE		NS/PE	NS/PE
30	Pomona	MI/PE	MS/PE		MS/PE			
31	Redlands				NS/PE/HC	NS/PE		
32	Rehrig (Exide)							MI/IM
33	Reseda	NS/PE	US/PE		US/PE		NS/PE	
34	Rubidoux	NS/PE	US/PE	NS/PE	USPE	NS/HC	NS/HC	NS/PE
35	San Bernardino	MS/PE	US/PE		NS/HC	NS/PE	NS/PE	NS/PE
36	Santa Clarita	NS/PE	NS/PE		US/HC	NS/PE		
37	South Long Beach					NS/PE	NS/PE	NS/PE
38	Temecula				NS/HC			
39	Uddelholm (Trojan Battery)							MI/IM
40	Upland	NS/PE	NS/PE		NS/PE			NS/PE
41	West Los Angeles	NS/PE	MS/HC		NS/PE			

TABLE 3. FRM Criteria Pollutant Monitoring Purposes
MONITORING PURPOSE

BK – Background

HC – High Concentration

TP – Pollutant Transport

EX – Population Exposure

SO – Source Impact

RC – Representative Concentration

RM – Real-Time Reporting/Modeling

TR – Trend Analysis

CP – Site Comparisons

CO – Collocated

	Location	CO	NO2	SO2	O3	Manual PM10	Manual PM2.5	Pb
1	Anaheim	TR	TR/RC		TR	HC/TR	TR/EX	
2	Anaheim Route 5 Near Road	SO/HC	SO/HC					
3	ATSF (Exide)							SO
4	Azusa	TR	TR/RC		TR	TR	TR/EX	
5	Banning Airport		TP/RC		TP	TP		
6	Big Bear						EX/SO/TP	
7	Central San Bernardino Mountains				HC	TP/RC		
8	Closet World (Quemetco)							SO
9	Compton	TR/HC	TR/RC		TR/RC		EX/HC/RC	EX
10	Fontana	RC	TP/RC	TR	RC	HC/RC	EX/TP	
11	Glendora	RC	TR/RC		HC			
12	Indio				TP	HC/CO	TP/EX	
13	La Habra	RC	TR/RC		RC			
14	Lake Elsinore	TP/RC	TP/RC		TP/RC			
15	LAX Hastings	BK	BK	BK	BK	BK		BK
16	Long Beach (Hudson)	TR	TR/RC	TR/HC	TR	TR/RC		
17	Long Beach (North)						EX	
18	Long Beach Route 710 Near Road		SO/HC				SO/HC	
19	Los Angeles (Main St.)	SO/RC	SO/HC	TR	TR/RC	TR/RC/CO	EX/HC/CO	EX/CO
20	Mecca (Saul Martinez)					HC/EX/RC		
21	Mira Loma (Van Buren)	TR/RC	TR/RC		TR/HC	HC	EX/HC/CO	
22	Mission Viejo	RC			TR/RC	TR/RC	EX/RC	
23	Norco					TR/RC		
24	Ontario Etiwanda Near Road	SO/HC	SO/HC					
25	Ontario Route 60 Near Road		SO/HC				SO/HC	
26	Palm Springs	TP/RC	TP/RC		TP	TP	EX/TP	
27	Pasadena	TR/RC	TR/HC		TR/RC		EX/RC	
28	Perris				TP	TR		
29	Pico Rivera #2	RC	HC		EX		EX/RC	EX
30	Pomona	RC	RC		EX			
31	Redlands				TP/RC	TP/RC		
32	Rehrig (Exide)							SO/CO
33	Reseda	RC	TR/RC		EX		EX/RC	
34	Rubidoux	TR/RC	TR/RC	TR	TR/HC	HC/TR/CO	HC/EX/TR/CO	EX
35	San Bernardino	TR/RC	TP/RC		TR/HC	TR	EX/TR	EX
36	Santa Clarita	RC	TP/RC		TP/RC	RC	EX/RC	
37	South Long Beach					RC	EX	EX
38	Uddelholm (Trojan Battery)							SO
39	Temecula				TR/HC			
40	Upland	RC	TR/RC		TR/RC			
41	West Los Angeles	RC	TR/HC		RC			

TABLE 4. Continuous PM₁₀/PM_{2.5} Monitoring Purpose, Site Type and Spatial Scales
SITE TYPE

HC – High Concentration
PE – Population Exposure
BK - Background

SPATIAL SCALE

MI – Microscale
NS – Neighborhood Scale

INSTRUMENT TYPE

TEOM
BAM (NON-FEM)
BAM (FEM)

MONITORING PURPOSE

CO – Collocated
SO – Source Impact
TP – Pollutant Transport

RM – Real-Time Reporting/Modeling
SPM Special Purpose Monitoring
TR – Trend Analysis

	Continuous PM ₁₀				Continuous PM _{2.5}				PM ₁₀ – 2.5
Location	Type	Purpose	Site Type	Scale	Type	Purpose	Site Type	Scale	Operational
Anaheim	BAM/FEM	TR/RM	HC	NS	BAM/FEM	TR/RM	PE	NS	
Banning Airport					BAM/NON-FEM	TP/RM	PE	NS	
Central San Bernardino Mountains					BAM/NON-FEM	TP/RM	PE	NS	
Glendora	BAM/FEM	TR/RM	PE	NS	BAM/NON-FEM	TR/RM	PE	NS	
Indio	TEOM/FEM	RM	HC	NS	BAM/FEM	SPM	PE	NS	
Lake Elsinore	TEOM/FEM	TP/RM	PE	NS	BAM/NON-FEM	TP/RM	PE	NS	
Long Beach Route 710 Near Road					BAM/FEM	SO/RM	HC	MI	
Los Angeles (Main St.)	BAM/FEM	TR/RM	PE	NS	BAM/FEM	TR/RM	HC	NS	Yes
Mecca (Saul Martinez)	TEOM/FEM	RM	HC	NS					
Mira Loma (Van Buren)	BAM/FEM	TR/RM	HC	NS	BAM/FEM	TR/RM	HC	NS	
Ontario Route 60 Near Road					BAM/FEM	SO/RM	HC	MI	
Palm Springs	TEOM/FEM	TR/RM	PE	NS					
Reseda					BAM/NON-FEM	RM	PE	NS	
Rubidoux	BAM/FEM	TR/RM	HC	NS	BAM/FEM	RM/TR/CO	HC	NS	Yes
San Bernardino	TEOM/FEM	TR/RM	PE	NS					
Santa Clarita					BAM/NON-FEM	TP/RM	PE	NS	
South Long Beach					BAM/FEM	RM	PE	NS	
Temecula					BAM/NON-FEM	TP/RM	PE	NS	
Upland	BAM/FEM	RM	PE	NS	BAM/NON-FEM	RM	PE	NS	

A brief description of the criteria pollutant and program monitoring networks are provided below:

OZONE (O₃)

The South Coast AQMD operates 28 sites where O₃ measurements are made as part of the Air Monitoring Network. O₃ sites are spread throughout the Basin with highest concentrations measured inland. Figure 1 in Appendix A shows the spatial distribution of these sites and Table 12 shows the minimum monitoring requirements.

PM₁₀

Size-selective inlet manual high volume samplers are operated at 20 sites to meet the requirements for PM₁₀ Federal Reference Method (FRM) sampling. The PM₁₀ monitoring network contains six sites within 20% of the Federal National Ambient Air Quality Standard (NAAQS) as shown in the 2018 Air Quality Data Table (<http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year>) Figure 9. The South Coast AQMD PM₁₀ monitoring network exceeds the minimum number of monitors required as shown in Table 16 and Figure 1.

PM₁₀ sampling frequency requirements specify a 24-hour sample must be taken from midnight to midnight (local standard time) to ensure national consistency. The minimum monitoring schedule for the site in the area of expected maximum concentration (24 hour Design Concentration) shall be based on the relative level of that monitoring site concentration with respect to the 24-hour standard.

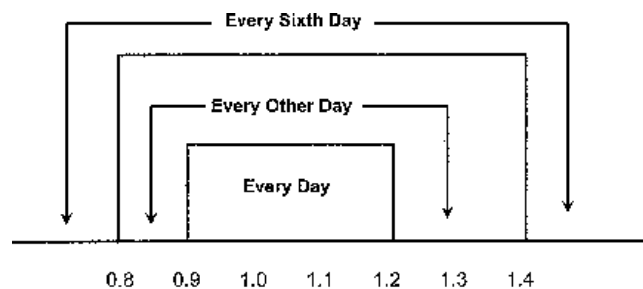


Figure 1 – Ratio to Standard

Evaluation of daily values show all PM₁₀ FRM monitors operate on a one day in six schedule with the exception of Anaheim and Mira Loma. The sampling frequency requirement for Anaheim and Mira Loma are met by utilizing continuous PM₁₀ monitors. South Coast AQMD operates Indio, Mira Loma and Rubidoux on one day in three day schedule as show in Tables 5 and 6.

Quality control for Manual PM₁₀ requires 15 percent of the primary monitors be collocated. Fifty percent of the collocated quality control monitors should be deployed at sites with daily concentrations estimated to be within plus or minus 20 percent of the applicable NAAQS and the remainder at the discretion of the Primary Quality Assurance Organization (PQAO). If an organization has no sites with daily concentrations within plus or minus 20 percent of the NAAQS, 50 percent of the collocated quality control monitors should be deployed at those sites with the daily mean concentrations among the highest for all sites in the network

and the remainder at the PQAOs discretion. The Indio, Mira Loma and Rubidoux site exceed this requirement and are designated PM10 collocated and shown in Tables 5, 6 and 24.

PM10 continuous analyzers are operated at 11 sampling sites. These real-time devices are capable of making hourly particulate concentration measurements for real-time reporting. Table 4 describes the monitor type, site type, monitoring purpose, and spatial scale for continuous particulate analyzers. Figure 2 in Appendix A shows the spatial distribution of the sampling sites. Real-time monitors, for the most part, are clustered in the high concentration areas, with three located in the Coachella Valley desert area where wind-blown crustal material has caused exceedances of the twenty-four hour standard during exceptional events. In downwind areas of the Basin, a large fraction of particulate is formed in the atmosphere; PM10 typically reaches maximum levels in the Basin during late summer through early winter months.

During 2018, the Federal 24-hour standard for PM10 was not exceeded as shown in Appendix A, Figure 9.

TABLE 5. Manual PM₁₀ FRM Monitoring Stations Assigned Site Numbers

	Location	Site Code	ARB No.	AQS No.	Start Date	Schedule
1	Anaheim	ANAH	30178	060590007	01/03/99	1-in-6
2	Azusa	AZUS	70060	060370002	01/04/99	1-in-6
3	Banning	BNAP	33164	060650012	04/01/97	1-in-6
4	Central San Bernardino Mountains	CRES	36181	060710005	10/01/73	1-in-6
5	Fontana	FONT	36197	060712002	01/03/99	1-in-6
6A	Indio “A” & “B ¹ ” Composite	INDI	33157	060652002	01/30/99	1-in-3
6C	Indio “C” ²	INDI	33157	060652002	01/30/99	1-in-6
7	Los Angeles (Hastings)	LAXH	70111	060375005	04/01/04	1-in-6
8	Long Beach (Hudson)	HDSN	70033	060374006	01/01/10	1-in-6
9	Mecca (Saul Martinez)	SLMZ	33033	060652005	01/01/11	1-in-6
10A	Los Angeles (Main St.) “A”	CELA	70087	060371103	01/03/99	1-in-6
10B	Los Angeles (Main St.) “B” ³	CELA	70087	060371103	01/03/99	1-in-6
11A	Mira Loma (Van Buren) “A” & “B ¹ ” Composite	MLVB	33165	060658005	11/09/05	1-in-3
11C	Mira Loma (Van Buren) “C” ²	MLVB	33165	060658005	03/08/12	1-in-6
12	Mission Viejo	MSVJ	30002	060592022	06/01/99	1-in-6
13	Norco	NORC	33155	060650003	12/01/80	1-in-6
14	Palm Springs	PLSP	33137	060655001	12/26/99	1-in-6
15	Perris	PERI	33149	060656001	05/01/73	1-in-6
16	Redlands	RDLA	36204	060714003	09/01/86	1-in-6
17A	Rubidoux “A” & “B ¹ ” Composite	RIVR	33144	060658001	01/03/99	1-in-3
18	San Bernardino	SNBO	36203	060719004	01/03/99	1-in-6
19	Santa Clarita	SCLR	70090	060376012	05/01/01	1-in-6
20	South Long Beach	SLGB	70110	060374004	06/01/03	1-in-6

¹ Run on 1-in-3 run day as composite sampler

² Run as collocated on 1-in-6 run day.

³ Run as collocated NATTS

TABLE 6. PM₁₀ Monitor Sampling Frequency Requirement

	Location	AQS No.	Design Conc. In ug/m ³ 24-hour	Required Sampling Frequency	Sampling Frequency
1	Anaheim	060590007	129	1-in-2 ¹	1-in-1
2	Azusa	060370002	78	1-in-6	1-in-6
3	Banning	060650012	39	1-in-6	1-in-6
4	Central San Bernardino Mountains	060710005	78	1-in-6	1-in-6
5	Fontana	060712002	64	1-in-6	1-in-6
6	Indio	060652002	146	1-in-6	1-in-3
7	Los Angeles (Hastings)	060375005	45	1-in-6	1-in-6
8	Long Beach (Hudson)	060374006	84	1-in-6	1-in-6
9	Mecca (Saul Martinez)	060652005	145	1-in-6	1-in-6
10	Los Angeles (Main St.)	060371103	81	1-in-6	1-in-6
11A	Mira Loma (Van Buren)	060658005	148	1-in-1 ¹	1-in-1
12	Mission Viejo	060592022	55	1-in-6	1-in-6
13	Norco	060650003	100	1-in-6	1-in-6
14	Palm Springs	060655001	117	1-in-6	1-in-6
15	Perris	060656001	64	1-in-6	1-in-6
16	Redlands	060714003	74	1-in-6	1-in-6
17A	Rubidoux	060658001	126	1-in-6	1-in-3
18	San Bernardino	060719004	129	1-in-6	1-in-6
19	Santa Clarita	060376012	49	1-in-6	1-in-6
20	South Long Beach	060374004	55	1-in-6	1-in-6

¹ Daily sampling requirement met through continuous monitor as shown in Table 4.

Note: Sampling frequency requirement per 58.12 (e)

PM₁₀-2.5

PM₁₀-2.5 (PM Coarse) was previously required at National Core (NCore) sites until the revision to 40 CFR Part 58 on March 28, 2016. PM Coarse is derived from the continuous BAM PM₁₀ and PM_{2.5} particulate monitors. South Coast AQMD continues to measure this optional parameter utilizing the continuous BAM monitors at the Los Angeles (Main St.) and Rubidoux air monitoring sites as shown in Table 4. The Purpose, Site Type and Scale are similar to the continuous PM₁₀ and PM_{2.5} instruments from which data is calculated.

NITROGEN DIOXIDE (NO₂)

The NO₂ network consists of 22 area wide, and 4 near road sites. These sites are located in areas of highest expected NO₂ concentrations.

The Near Road monitoring network consists of four sites which were implemented in January of 2014 and 2015. These sites were selected based upon criteria established in U.S. EPA Near Road Technical Assistance Document, and approved by U.S. EPA. The implementation plan was presented publically at a Near Road Workshop to solicit input. Near Road sites are adjacent to the most heavily traveled roadways identified in the basin where peak hourly NO₂ concentrations are occur within the near-road environment. Site selection took into consideration satisfying siting criteria, site logistics (e.g., gaining access

to property and safety), and population exposure for those who live, work, play, go to school, or commute within the near-roadway environment. The spatial distribution of NO₂ monitors is shown in Figure 3 in Appendix A and minimum monitoring requirements are shown in Table 17.

Additionally, the Regional Administrator (RA) identified 40 NO₂ sites nationwide with a primary focus on siting these monitors in locations to protect susceptible and vulnerable populations. The RA in collaboration with South Coast AQMD identified the Los Angeles (Main St.), and San Bernardino sites from the existing area-wide monitoring network to meet this requirement (58.10[a][5]). On September 30, 2013, Compton was also designated as a RA 40 site. Review of 1992 through 2018 NO₂ data shows the State and Federal standards for NO₂ were not violated.

CARBON MONOXIDE (CO)

Area wide CO monitors measure concentrations at 22 ambient locations and 2 near road locations within the South Coast AQMD ambient air monitoring network. Figure 4 in Appendix A shows the spatial distribution of these sites. CO emissions, primarily from motor vehicles, show a pattern consistent with major freeway arteries. A review of data for 2018 shows State and Federal standards for CO were not exceeded.

SULFUR DIOXIDE (SO₂)

SO₂ monitors are located at 5 sites. Figure 5 in Appendix A shows the spatial distribution of the sites. Most SO₂ emissions result from federally regulated transportation sources such as marine vessels. The monitors are clustered largely in the areas where sources are located.

On June 22, 2010, U.S. EPA strengthened the SO₂ NAAQS. Network design requirements included new minimum requirements be determined by the Population Weighted Emissions Index (PWEI).

The PWEI shall be calculated by States for each Core Based Statistical Area (CBSA) they contain or share with another State or States for use in the implementation of or adjustment to the SO₂ monitoring network. The PWEI shall be calculated by multiplying the population of each CBSA, using the most current census data or estimates, and the total amount of SO₂ in tons per year emitted within the CBSA area, using an aggregate of the most recent county level emissions data available in the National Emissions Inventory (NEI) for each county in each CBSA. The resulting product shall be divided by one million, providing a PWEI value, the units of which are million persons-tons per year. For any CBSA with a calculated PWEI value equal to or greater than 1,000,000, a minimum of three SO₂ monitors are required within that CBSA. For any CBSA with a calculated PWEI value equal to or greater than 100,000, but less than 1,000,000, a minimum of two SO₂ monitors are required within that CBSA and for any CBSA with a calculated PWEI value equal to or greater than 5,000, but less than 100,000, a minimum of one SO₂ monitor is required within that CBSA.

TABLE 7. PWEI Calculation and Minimum Required SO₂

CBSA	Population Estimate¹	NEI SO₂ Emissions²	PWEI Value	Minimum Required SO₂
31080	13,291,486	6,049.52	80,407	1
40140	4,622,361	1,807.12	8,353	1

¹ 2018 Census estimate available for download at

² 2014 NEI Data most recent available at <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory>

South Coast AQMD exceeds the minimum monitoring requirement for SO₂ monitors; the Federal standard has not been exceeded for nearly 35 years.

PARTICULATE LEAD

Total Suspended Particulate (TSP) Pb measurements are collected at 11 sites as part of the particulate network; 4 of the sites are Source Impact for Pb, 2 are NCore, and the remaining 5 sites measure ambient Pb. Minimum monitoring and collocation requirements are shown in Tables 8, 20, 21, 22 and 24. The spatial distribution of these sites is shown in Figure 6 in Appendix A.

U.S. EPA regulation requires local agencies to conduct ambient air Pb monitoring near Pb sources which are expected to or have been shown to contribute to a maximum Pb concentration in ambient air in excess of the NAAQS, taking into account the logistics and potential for population exposure. At a minimum, there must be one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each non-airport Pb source which emits 0.50 or more tons per year and from each airport which emits 1.0 or more tons per year based the most recent NEI or other scientifically justifiable methods and data (such as improved emissions factors or site-specific data). The most recent South Coast AQMD annual emissions inventory (2017) and airport data from the NEI (<https://www.epa.gov/air-emissions-inventories/national-emissions-inventory>) shows there were no non-airport Pb sources that emit 0.50 or more tons per year (tpy) and no airports that exceeded the 1.0 tpy threshold requiring a monitoring plan.

Although no source Pb monitoring is required based on emission estimates, South Coast AQMD operates source Pb sites surrounding the Exide (Vernon), Quemetco (Industry), and the Trojan Battery facilities. Existing urban Pb monitoring include Compton, LAX Hastings, Pico Rivera, San Bernardino, and South Long Beach. Los Angeles (Main St.) and Rubidoux are designated NCore Pb sites, however, U.S. EPA proposed removing the requirement for Pb monitoring at NCore sites (79 FR 54395, September 11, 2014) and action may be taken to request these monitors be removed in consultation with U.S. EPA. Upland Pb was closed on February 9, 2017 due to terms of the lease and SA Recycling was closed on July 11, 2017 due to sale of property. The Van Nuys Airport Pb monitor was granted a retroactive waiver by U.S. EPA during 2017. South Coast AQMD continues to meet or exceed the minimum monitoring requirements for Pb. At the end of 2018, South Coast AQMD is not in violation of the Pb NAAQS.

TABLE 8. Manual Pb FRM Monitor Sampling Frequency

	Location	AQS No.	Type	Required Sampling Frequency
1	ATSF (Exide)	060371406	Source	1-in-6
2	Closet World (Quemetco)	060371404	Source	1-in-6
3A	Compton “A”	060371302	Area Wide	1-in-6
3B	Compton “B” ²	060371302	Area Wide	1-in-6
4	LAX Hastings	060375005	Area Wide	1-in-6
5	Long Beach (South)	060374004	Area Wide	1-in-6
6A	Los Angeles (Main St.) ¹	060371103	NCore	1-in-6
6B	Los Angeles (Main St.) ^{1, 2}	060371103	NCore	1-in-6
7	Pico Rivera #2	060371602	Area Wide	1-in-6
8	Rehrig (Exide)	060371405	Source	1-in-6
9	Rubidoux ¹	060658001	NCore	1-in-6
10	San Bernardino	060719004	Area Wide	1-in-6
12	Uddelholm (Trojan Battery)	060371403	Source	1-in-6

¹ U.S. EPA proposed removing the requirement for Pb monitoring at NCore sites (79 FR 54395, September 11, 2014).

² Run as collocated on 1-in-6 run day.

Note: Sampling frequency requirement per 58.12 (b)

Photochemical Assessment Monitoring Stations (PAMS)

The South Coast AQMD Enhanced Monitoring Plan (EMP) for PAMS measurements, in accordance with 40 CFR 58 Appendix D paragraph 5(a) was submitted to the Regional Administrator by South Coast AQMD on July 1, 2018.

Based on 40 CFR 58 Appendix D, State air monitoring agencies are required to begin making PAMS measurements at their NCore location(s) by June 1, 2019. The equipment needed to measure PAMS parameters were to be purchased by U.S. EPA using a nationally negotiated contract and delivered to the monitoring agencies. U.S. EPA has announced that due to contract delays, the necessary equipment will not be delivered in time to begin making PAMS measurements by June 1, 2019. U.S. EPA has indicated that it is working on a proposed rule to extend the start date of PAMS measurements and expects that this proposed rule change will be signed by June 1, 2019. As a result of the, delay South Coast AQMD may not begin making PAMS measurements at the Los Angeles (Main St.) and Rubidoux NCore locations in 2019 dependent upon receipt of the equipment. South Coast AQMD will work with U.S. EPA to begin measurements on or before the final revised start date for this network.

The plan submitted to U.S. EPA is attached as Appendix D and includes PAMS site locations, types of instruments, and frequency of measurements. South Coast AQMD utilizes PAMS data for trends analysis, trajectory modeling, and source emissions inventory reconciliation. The 2019 PAMS network monitoring objectives and requirements are summarized in Table 9, Table 23 and Figure 7 in Appendix A which show the distribution of the PAMS network.

TABLE 9. PAMS Network

Date Established as PAMS	Site / AQS ID#	June 1 to August 31		Comments
		VOC	Carbonyl	
06/01/2009	Los Angeles (Main St)	Auto GC hourly averages	3 x 8 hr. sample every 3rd day	Direct Measure NO2, Barometric Pressure, UV Radiation, Solar Radiation, Precipitation and Upper Air Measurements are conducted year round.
06/09/2009	Rubidoux	Auto GC hourly averages	3 x 8 hr. sample every 3rd day	Direct Measure NO2, Barometric Pressure, UV Radiation, Solar Radiation, Precipitation and Upper Air Measurements are conducted year round.

PM2.5

South Coast AQMD operates a total of 19 FRM sites exceeding the minimum number of required FRM PM2.5 SLAMS sites per 40 CFR 58 Appendix D and shown in Tables 10, 11 and 13. These sites are located at NCore as well as Non-NCore SLAMS sites and designed to complement each other; both types are used to meet the minimum PM2.5 network requirements.

FRM 2.5 SLAMS monitoring sites are selected to represent area-wide air quality and include monitors collocated with NCore/PAMS sites. The majority of monitoring sites are neighborhood scale, however, some micro scale PM2.5 monitoring sites are considered to represent area-wide air quality including the Route 710 Long Beach and Route 60 Ontario near road sites.

The Compton and Mira Loma sites are designated daily design value sites as shown in Table 13. Minimum sampling frequencies are shown in Table 11. Monitors exceed the minimum NCore 1 in 3 requirements at the Rubidoux and Los Angeles (Main St.) sites. The remaining sites meet or exceed the 1 in 3 schedule with the exception of Big Bear which was approved at the inception of the PM2.5 program as a 1 in 6 site and is expected to be a Federal Equivalent Method (FEM) site in 2019. The Federal minimum monitoring requirements for PM2.5 are being met and/or exceeded by the South Coast AQMD PM2.5 monitoring network.

Because of multiple method codes, collocated FRM PM2.5 sites include Los Angeles (Main St.), Mira Loma (Van Buren), Pasadena, Pico Rivera and Rubidoux. 40 CFR § 58 Appendix A 3.2.3.4 (b) requires fifty percent of the collocated quality control monitors to be deployed at sites with annual average or daily concentrations estimated to be within plus or minus 20 percent of either the annual or 24-hour NAAQS and the remainder at the PQAOs discretion. Of the collocated sites, Los Angeles (Main St.), Mira Loma, Rubidoux, and Pico Rivera are within 20 percent of the 24-hour NAAQS as required. Supporting data is shown in Table 11 and Figure 9, 2018 Air Quality Data Table. The latest data can be found at: (<http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year>).

Continuous PM2.5 monitors are required at 2 sites in each Metropolitan Statistical Area (MSA) as defined in 40 CFR 58 Appendix D and shown in Table 14. FEM continuous analyzers are largely collocated with daily FRM monitors. South Coast AQMD conducted a PM2.5 Continuous Monitor Comparability Assessment in accordance with the PM NAAQS rule published on January 15, 2013 (78 FR 3086) for the period 2016-2018. Specific to the provisions detailed in §58.10 (b)(13) and §58.11 (e), the assessment results, shown in Appendix C, indicate that South Coast AQMD PM2.5 continuous monitors do not meet the criteria to be compared against the NAAQS. South Coast AQMD requests a waiver to exclude PM2.5 continuous monitor data from NAAQS comparison for 2018. Meanwhile, South Coast AQMD is continuing comparison studies of newer technology to determine their ability to meet the criteria to be compared against the NAAQS.

Where both 24 hour FRM PM2.5 samplers and FEM PM2.5 continuous analyzers are deployed together, they are sited as collocated for data comparison purposes. The FRM

PM2.5 sampler remains the primary analyzer used for attainment purposes and continuous analyzers are designated as audit samplers unless the primary 24 hour FRM PM2.5 is offline then continuous FEM analyzer data can be substituted if the FEM analyzer meets the acceptance criteria under 78 FR 3086.

Coarse particulate matter measurements (PM10-2.5) were required at NCore sites until the revision to 40 CFR Part 58 on March 28, 2016. South Coast AQMD continues to measure this optional parameter by utilizing the continuous BAM monitors at the Los Angeles (Main St.) and Rubidoux air monitoring sites. These monitors are shown in Table 4.

Numerous sites within the South Coast AQMD FRM PM2.5 network are in areas where PM2.5 levels are higher than the NAAQS. Therefore multiple sites are listed as population exposure and high concentration. If a PM2.5 network modification were to be implemented for a site that was in exceedance of the PM2.5 NAAQS levels, South Coast AQMD would notify U.S. EPA Region IX via written communication. Public notice of network modifications occurs as part of the annual network plan process which is stated in the annual network plan as required in 40 CFR § 58.10(c). All sites in the Network using FRM samplers are suitable for comparison against the annual PM2.5 NAAQS.

PM2.5 speciation sampling is also a part of the South Coast AQMD PM2.5 program. Chemical speciation monitors are located at Los Angeles (Main St.) and Rubidoux as part of U.S. EPA PM2.5 Chemical Speciation Network (CSN), which has replaced the former Speciation Trends Network (STN). These sites were selected and approved with the concurrence of the Administrator. The PM2.5 CSN sites include analysis for elements, selected anions, cations, and carbon by a U.S. EPA contracted laboratory. Additional PM2.5 Chemical speciation is conducted at Los Angeles (Main St.), Rubidoux, Anaheim and Fontana as part of the South Coast AQMD monitoring network. These monitors are separate from CSN and samples are analyzed at the South Coast AQMD laboratory. Speciated data is used to develop implementation plans and support atmospheric/health effects related studies

TABLE 10. Manual PM_{2.5} FRM Monitoring Stations Assigned Site Numbers

	Location	Site Code	ARB No.	AQS No.	Start Date
1A	Anaheim “A”	ANAH	30178	060590007	01/03/99
1B	Anaheim “B” ²	ANAH	30178	060590007	01/03/99
2	Azusa (composite)	AZUS	70060	060370002	01/04/99
3	Big Bear	BGBR	36001	060718001	02/08/99
4	Compton	COMP	70112	060371302	11/08
5	Fontana	FONT	36197	060712002	01/03/99
6	Indio	INDI	33157	060652002	01/30/99
7	Long Beach (North) ¹	LGBH	70072	060374002	01/03/99
8	Long Beach Route 710 Near Road	W710	70032	060374008	01/01/15
9A	Los Angeles (Main St.) “A”	CELA	70087	060371103	01/03/99
9B	Los Angeles (Main St.) “B” ²	CELA	70087	060371103	01/06/99
10A	Mira Loma (Van Buren) “A”	MRLM	33165	060658005	11/09/05
10B	Mira Loma (Van Buren) “B” ²	MRLM	33165	060658005	03/08/12
11	Mission Viejo	MSVJ	30002	060592022	06/15/99
12	Ontario Route 60 Near Road	60NR	36036	060710027	01/01/15
13	Palm Springs	PLSP	33137	060655001	12/26/99
14A	Pasadena “A”	PASA	70088	060372005	03/04/99
14B	Pasadena “B” ²	PASA	70088	060372005	03/04/99
15A	Pico Rivera #2 (composite)	PICO	70185	060371602	09/12/05
15C	Pico Rivera #2 ²	PICO	70185	060371602	09/12/05
16	Reseda	RESE	70074	060371201	01/24/99
17A	Rubidoux “A”	RIVR	33144	060658001	01/03/99
17B	Rubidoux “B” ²	RIVR	33144	060658001	01/03/99
18	San Bernardino	SNBO	36203	060719004	01/03/99
19	South Long Beach	SLGB	70110	060374004	06/20/03

¹Although the N. Long Beach station has been closed, FRM PM_{2.5} measurements continued at the location until a suitable replacement site can be implemented.

²FRM run as collocated on 1-in-6 run day.

TABLE 11. Manual PM_{2.5} FRM Monitor Sampling Frequency

	Location	AQS No.	24 hour Design Value	33-37ug/m ³	Annual Design Value	< 12 ug/m ³	Required Frequency ¹	Current Frequency
1	Anaheim	060590007	N/A	No	N/A	No	1 in 3	Daily
2	Azusa (composite)	060370002	27	No	10.4	Yes	1 in 3	1-in-3
3	Big Bear	060718001	21	No	6.5	Yes	1 in 6 ⁶	1-in-6
4	Compton	060371302	38	No	12.6	No	1 in 3	Daily
5	Fontana	060712002	27	No	11.9	Yes	1 in 3	1-in-3
6	Indio	060652002	16	No	8.0	Yes	1 in 3	1-in-3
7	Long Beach (North) ²	060374002	30	No	10.9	Yes	1 in 3	Daily
8	Long Beach Route 710 Near Road	060374008	33	Yes	12.7	No	1 in 3	Daily
9A	Los Angeles (Main St.) “A”	060371103	31	No	12.2	No	1 in 3	Daily
9B	Los Angeles (Main St.) “B” ⁴	060371103	N/A	Collocated			1 in 6	1-in-6
10A	Mira Loma (Van Buren) “A”	060658005	36	No	13.9	No	1 in 3	Daily
10B	Mira Loma (Van Buren) “B” ⁴	060658005	N/A	Collocated			1 in 6	1-in-6
11	Mission Viejo	060592022	16	No	8.0	Yes	1 in 3	1-in-3
12	Ontario Route 60 Near Road	060710027	34	Yes	14.7	No	1 in 3	Daily
13	Palm Springs	060655001	13	No	5.8	Yes	1 in 3	1-in-3
14A	Pasadena “A”	060372005	25	No	9.8	Yes	1 in 3	1-in-3
14B	Pasadena “B” ³	060372005	N/A	Collocated			1 in 6	1-in-6
15A	Pico Rivera #2 (composite)	060371602	30	No	12.3	No	1 in 3	1-in-3
15C	Pico Rivera #2 “C” ⁵	060371602	N/A	Collocated			1 in 6	1-in-6
16	Reseda	060371201	23	No	9.8	Yes	1 in 3	1-in-3
17A	Rubidoux “A”	060658001	30	No	12.5	No	1 in 3	Daily
17B	Rubidoux “B” ⁴	060658001	N/A	Collocated			1 in 6	1-in-6
18	San Bernardino	060719004	27	No	11.2	Yes	1 in 3	1-in-3
19	South Long Beach	060374004	29	No	10.7	Yes	1 in 3	Daily

¹ Required SLAMS stations whose measurements determine the 24-hour design value for their area and whose data are within ±5 percent of the level of the 24-hour PM_{2.5} NAAQS must have an FRM or FEM operate on a daily schedule if that area's design value for the annual NAAQS is less than the level of the annual PM_{2.5} standard. Changes in sampling frequency attributable to changes in design values shall be implemented no later than January 1 of the calendar year following the certification of such data as described in §58.15.

² Although the N. Long Beach station has been closed, FRM PM_{2.5} measurements continue at the location until a suitable replacement site can be implemented.

³ RAAS run as collocated on 1-in-6 run day.

⁴ Partisol 2025i run as collocated on 1-in-6 run day.

⁵ Partisol 2000i run as collocated on 1-in-6 run day.

⁶ 1 in 6 schedule exception established at inception of program.

National Air Toxics Trends Station (NATTS)

The NATTS program was developed to fulfill the need for long-term Hazardous Air Pollutant (HAP) monitoring data of consistent quality nationwide and is considered part of the larger Urban Air Toxics Monitoring Program (UATMP). The program has allowed for the identification of compounds that are prevalent in ambient air and for participating agencies to screen air samples for concentrations of air toxics that could potentially result in adverse human health effects. South Coast AQMD has conducted several air toxics measurement campaigns in the past, which demonstrated the variety and spatial distribution of air toxics sources across the Basin. A single air toxics measurement site cannot reflect the levels and trends of air toxics throughout the Basin. For this reason, two NATTS sites are used to characterize the Basin's air toxics levels. The first site is a central urban core site in Los Angeles that reflects concentrations and trends due primarily to urban mobile source emissions. A second, more rural, inland site at Rubidoux captures the transport of pollutants from a variety of upwind mobile and industrial sources in the most populated areas of the air basin. NATTS monitoring began in February 2007 and continues at the Los Angeles (Main St.) and Rubidoux air monitoring sites. During April 2016, a system audit was conducted by U.S. EPA, which assessed the South Coast AQMD NATTS program. The audit found no major issues with the operation of the network.

NCore

NCore monitoring rules required that South Coast AQMD make NCore sites operational by January 1, 2011. To meet this goal, South Coast AQMD installed trace level analyzers for CO, NOY and SO₂ at the Rubidoux and Los Angeles (Main St.) sites. Continuous PM₁₀ and PM_{2.5} BAMs are utilized for PM₁₀-PM_{2.5} measurements at both sites. Both the Los Angeles (Main St.) and Rubidoux sites are NATTS and PAMS monitoring locations.

Special Programs

Special monitoring programs are conducted for rule compliance purposes, to characterize the levels of toxic air contaminants and other criteria pollutants in sub-regional areas or communities in the Basin, or to support modeling and planning efforts. The following is a list of special monitoring programs that were active during the past year. Note that this is being provided for informational purposes only.

Multiple Air Toxics Exposure Study (MATES)

The Basin is a highly urbanized area home to about seventeen million people who own and operate about eleven million motor vehicles, and contains some of the highest concentrations of industrial and commercial operations in the country. In 1986, South Coast AQMD conducted the first MATES study to determine the Basin-wide risks associated with major airborne carcinogens. At the time, the state of technology was such that only ten known air toxic compounds could be analyzed. In 1998, a second MATES study (MATES II) was conducted; MATES II included a monitoring program of 40 known air toxic compounds, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize health risks from hazardous air pollutants. In April 2004, the South Coast AQMD conducted the third MATES study (MATES III) to assess the ambient levels of airborne compounds linked to adverse health effects in humans. And in June 2012, South Coast AQMD began

the fourth MATES study (MATES IV) which concluded in June, 2013. A final report was released May 1, 2015.

The fifth MATES study (MATES V) includes a fixed site monitoring program with ten stations, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize risk across the basin. The study focuses on the carcinogenic risk from exposure to air toxics but does not estimate mortality or other health effects from particulate exposures.

The purpose of the MATES V fixed site monitoring is to characterize long-term regional air toxics levels in residential and commercial areas. To complement and enhance the fixed site monitoring, MATES V efforts will include: advanced state-of-the-art monitoring technologies, low-cost sensor networks, and near real-time data and community engagement to conduct enhanced air toxics monitoring at local scales with a focus on Environmental Justice (EJ) communities, especially those near refineries. The motivation behind the enhanced monitoring efforts is to better characterize air toxics levels in highly impacted areas, and provide higher resolution air quality data to better understand emissions from petroleum refineries and warehouses. The data is essential to implement control measures to reduce toxic air pollution in these communities. The most recent program updates can be found at:

<http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>

Assembly Bill 617 Community Air Initiatives (AB 617)

Assembly Member Cristina Garcia authored AB 617 to address the disproportionate impacts of air pollution in EJ communities. The measure requires local air districts to take specific actions to reduce air pollution and toxic air contaminants from commercial and industrial sources.

Previously passed bills provide significant new funding and resources to expand South Coast AQMD's community-based programs to reduce air pollution and protect public health, with a focus on EJ communities.

The primary purpose of these new efforts is to implement AB 617. South Coast AQMD will conduct extensive outreach to residents and other stakeholders to describe the program and seek input on how to implement it. The most recent program updates can be found at: <http://www.aqmd.gov/nav/about/initiatives/environmental-justice/ab617-134>.

Rule 1180 Refinery Fenceline Air Monitoring

Adopted in December 2017, Rule 1180 mandates the implementation of real-time observations of air quality at or near the fenceline of all major refineries in the Basin, and in nearby communities.

The main objectives of Rule 1180 are to:

- Provide real-time information about air pollutant levels at the refinery fenceline and in nearby communities.

- Understand long-term variations and trends of refinery related emissions.
- Help communities understand potential air quality impacts of refinery emissions.
- Provide a notification to the community if emissions exceed pre-determined thresholds.
- Enable refineries to quickly address significant changes in emissions.

The most recent program updates can be found at: <http://www.aqmd.gov/home/rules-compliance/rules/support-documents/rule-1180-refinery-fenceline-monitoring-plans>.

Fugitive Dust Study

In support of South Coast AQMD Rule 403 - Fugitive Dust, SSI PM10 samplers are deployed on an episodic basis upwind and downwind of potential sources as required under Rule 403. Since 2003, periodic sampling has been conducted around gravel quarries and other industries which seem to be producing large volumes of dust.

Hexavalent Chrome

The South Coast AQMD has an ongoing program to collect ambient hexavalent chromium samples in the vicinity of several chrome plating and cement production facilities located throughout the Basin. Monitoring continues at Paramount, Newport Beach, Riverside, and other locations throughout the South Coast AQMD jurisdiction. South Coast AQMD Monitoring activities can be found at:

<http://www.aqmd.gov/home/air-quality/air-quality-studies/special-monitoring>.

Salton Sea Monitoring

On Sunday, September 9, 2012, a strong thunderstorm over the Salton Sea caused odors to be released and transported to the northwest, across the Coachella Valley and through the Banning Pass into the Basin. The odors also crossed through the mountain passes west of the Salton Sea and into the Temecula Valley. The following day, South Coast AQMD received over 235 complaints of sulfur type odors.

As the Salton Sea recedes, the potential exists for more of these large-scale odor events to occur. South Coast AQMD has installed PM10 and H2S air monitors at Mecca (Saul Martinez Elementary School) and the Imperial Irrigation District's Torrez-Martinez site, located near the lakeshore, to monitor the type of expected nuisance pollutants which are released from the Salton Sea. The primary objective of this monitoring network is to place monitoring resources at a lakeside location where peak hydrogen sulfide concentrations are expected to occur and in the nearby community. The monitoring sites provide data that can be used to assess population exposures in case of odor events and for comparison to the state standard for hydrogen sulfide. The Mecca site has become part of the permanent ambient air monitoring network.

As the Salton Sea is projected to recede, these sites will be further enhanced for monitoring the predicted particulate matter (PM) emissions from the Salton Sea area that may influence the Coachella Valley and Basin PM levels. Large-scale odor events are announced as advisories at the following location: <http://www.aqmd.gov/home/news-events/current-news>.

Compton – Paramount Community Air Toxics Initiative

South Coast AQMD has begun special air monitoring in the Compton area to assess levels of the toxic compound hexavalent chromium near several metal-processing facilities in the community. Efforts will focus on chromium plating and anodizing plants.

Air monitoring results will be analyzed to assess for toxic emissions from chromium plating and anodizing plants. The Compton area has several potential chrome-emitting facilities in the community in close proximity to each other and to schools, homes, other businesses and other sensitive receptors such as hospitals and senior centers.

While the facilities are not known to be emitting high levels of hexavalent chromium, air monitoring using the latest technology will confirm whether or not they could pose a significant health risk to the community. The most recent information can be found at: <http://www.aqmd.gov/home/news-events/community-investigations/air-toxics-action-plan/community-air-toxics-init-compton>.

Recent or Proposed Modifications to Network

Waiver Requests

South Coast AQMD is currently working with U.S. EPA Region IX representatives to request retroactive waivers for sites which have closed as a result of unexpected lease terminations and circumstances beyond control of South Coast AQMD. Priority is given to sites which have closed including: Riverside Magnolia, Ontario, Burbank, Long Beach, Costa Mesa, and SA Recycling.

Additionally, South Coast AQMD and U.S. EPA Region IX are working collaboratively to identify low value criteria pollutant monitors over the required minimum number of monitors. Once identified, waivers and supporting documentation will be submitted to U.S. EPA Region IX for final approval before removal of the monitors.

FRM PM2.5 Replacement

South Coast AQMD began purchasing FRM PM2.5 Partisol Manual Reference Method: RFPS-0498-118 and Manual Reference Method: RFPS-0498-117 to replace Anderson RAAS monitors Manual Reference Method: RFPS-0598-120 which have been a part of the PM2.5 network since the inception of the program. As a result of the deployment, method codes and collocations have been updated to reflect changes necessary to meet U.S. EPA requirements.

Continuous PM2.5 Testing at Indio, Palm Springs, Big Bear Lake, and Mission Viejo

South Coast AQMD is testing continuous FEM PM2.5 at Indio, Palm Springs, Big Bear Lake, and Mission Viejo. These comparison studies of newer technology including Thermo Scientific Model 5014i Continuous Ambient Particle Monitor Automated Equivalent Method: EQPM-0609-183 and Met One Instruments, Inc. BAM-1022 Real Time Beta Attenuation Mass Monitor EQPM-1013-209 are being conducted to determine their ability to meet the criteria to be compared against the NAAQS. If the comparisons meet the

Continuous Monitor Comparability Assessment criteria, South Coast AQMD will apply for a waiver to reduce, or remove manual FRM PM_{2.5} sampling from the sites.

Anaheim Relocation

The Anaheim site has been in continuous operation since August, 2001. Since that time the area surrounding the site has changed significantly potentially compromising data. The area immediately surrounding the site is designated as a loading/unloading zone for elementary school kids, creating a safety issue. South Coast AQMD has been approached by Anaheim Elementary School District, to relocate to a nearby school to better meet the needs of the school district and South Coast AQMD. Potential sites are under evaluation, and any relocation of the current site will be done in consultation with U.S. EPA.

Upland Relocation

The Upland site has been in continuous operation since March, 1973 and is one of South Coast AQMD's oldest continuous sites. Since that time the area surrounding the site has changed significantly, potentially compromising data. The site is located in a trailer park, and facility managers have approached South Coast AQMD indicating the site no longer is consistent with the facility. South Coast AQMD has been working with the Metropolitan Water District to locate a suitable replacement site. Considering the site is important in the measurement of ozone, a site closer to the foothills may more accurately represent transportation of ozone along the San Gabriel foothills. Potential sites are under evaluation, and any relocation of the current site will be done in consultation with U.S. EPA.

Hudson Relocation

The Hudson site has been in continuous operation since January, 2010. The site was originally located to measure the impact of the Port of LA emissions on the surrounding community. Since the time of inception, the area surrounding the site has changed potentially compromising data. Heavy Duty (HD) vehicle traffic, loading/unloading zone for elementary school kids, and a nearby pipeline may compromise data. U.S. EPA has been consulted, and South Coast AQMD is considering relocation of criteria pollutants during 2019 to a newly established site in Signal Hill. The Hudson site will continue to measure toxics as part of the AB 617 monitoring program.

Minimum Monitoring Requirements

The South Coast AQMD jurisdictional boundary encompasses two MSAs and two CBSAs whose boundaries and codes mirror those of the MSAs as defined by the U.S. Office of Management and Budget. Los Angeles-Long Beach-Anaheim MSA\CBSA (Code 31080) has an estimated population of 13,291,486 and the Riverside-San Bernardino-Ontario MSA\CBSA (Code 40140) has an estimated population of 4,622,361 according to U.S. Census estimates for 2018. The minimum number of monitors for each pollutant is based on MSA population as described in 40 CFR § 58 Appendix D. The South Coast AQMD is a PQAQ and the network exceeds the minimum monitoring requirements for all criteria pollutants. Details are provided below.

Table 12 Minimum Monitoring Requirements for Ozone.

(Note: Refer to section 4.1 and Table D-2 of Appendix D of 40 CFR Part 58.)

MSA	Counties	Population and Census Year	8-hr Design Value (ppb) DV, Years ¹	Design Value Site (name AQS ID)	Monitors Required	Monitors Active	Monitors Needed
31080	Los Angeles Orange	13,291,486 2018	103 2016-2018	Glendora 060370016	4	15	0
40140	San Bernardino Riverside	4,622,361 2018	111 2016-2018	Central San Bernardino Mountains 060710005	3	13	0

¹DV Years – The three years over which the design value was calculated.

Monitors required for SIP or Maintenance Plan: 28

Table 13 Minimum Monitoring Requirements for PM_{2.5} SLAMS (FRM)

(Note: Refer to sections 4.71, 4.72, and Table D-5 of Appendix D of 40 CFR Part 58.)

MSA	Counties	Population and Census Year	Annual Design Value [ug/m ³], DV & Years ¹	Annual Design Value Site (Name, AQS ID)	Daily Design Value [ug/m ³], DV & years	Daily Design Value site (name AQS ID)	# Required SLAMS Monitors	# Active SLAMS Monitors	# Additional SLAMS needed
31080	Los Angeles Orange	13,291,486 2018	12.7 2016-2018	Long Beach Route 710 Near Road 060374008	38.0 2016-2018	Compton 060371302	3	10	0
40140	San Bernardino Riverside	4,622,361 2018	14.7 2016-2018	Ontario Route 60 Near Road 060710027	36.0 2016-2018	Mira Loma 060658005	3	9	0

¹DV Years – The three years over which the design value was calculated.

Monitors required for SIP or Maintenance Plan: 19

Table 14 Minimum Monitoring Requirements for Continuous PM_{2.5} Monitors (FEM and Non-FEM)

(FEM/ARM and non-FEM see 40 CFR 58 Appendix D Section 4.72.)

MSA	Counties	Population and Census Year	Annual Design Value [ug/m ³], DV & Years ¹	Annual Design Value Site (Name, AQS ID)	Daily Design Value [ug/m ³], DV & years	Daily Design Value site (name AQS ID)	# Required Continuous Monitors	# Active Continuous Monitors	# Additional Continuous needed
31080	Los Angeles Orange	13,291,486 2018	12.7 ² 2016-2018	Long Beach Route 710 Near Road 060374008	38.0 ² 2016-2018	Compton 060371302	2	4-FEM 3-Non FEM	0
40140	San Bernardino Riverside	4,622,361 2018	14.7 ² 2016-2018	Ontario Route 60 Near Road 060710027	36.0 ² 2016-2018	Mira Loma 060658005	2	3-FEM 5-Non FEM	0

¹DV Years – The three years over which the design value was calculated.

²FRM DV has been substituted since continuous monitors do not meet 78 FR 3086.

Monitors required for SIP or Maintenance Plan: 15

Table 15 Minimum Monitoring Requirements for Speciated PM_{2.5} Monitors

(Note: Refer to sections 4.74 of Appendix D of 40 CFR Part 58.)

MSA	Counties	Population and Census Year	Monitors Required ¹	Monitors Active	Monitors Needed
31080	Los Angeles Orange	13,291,486 2018	1	2	0
40140	San Bernardino Riverside	4,622,361 2018	1	2	0

¹Sites designated as part of the PM_{2.5} STN.

Monitors required for SIP or Maintenance Plan: 4

Table 16 Minimum Monitoring Requirements for PM10

(Note: Refer to section 4.6 and Table D-4 of Appendix D of 40 CFR Part 58.)

MSA	Counties	Population and Census Year	2018 Max Concentration [ug/m3]	Max Concentration site (name AQS ID)	# Required Monitors	# Active Monitors	# Additional Monitors Needed
31080	Los Angeles Orange	13,291,486 2018	129	Anaheim 060590007	4-8 Med Conc.	8	0
40140	San Bernardino Riverside	4,622,361 2018	148	Mira Loma 060658005	4-8 Med Conc.	11	0

Monitors required for SIP or Maintenance Plan: 19

Table 17 Minimum Monitoring Requirements for NO2

(Note: Refer to section 4.3 of Appendix D of 40 CFR Part 58.)

CBSA	Population and Census Year	Max AADT Counts (2017) ¹	# Required Near Road Monitors ²	#Active Near Road Monitors	#Additional Near Road Monitors Needed	#Required Area Wide Monitors	#Active Area Wide Monitors	#Additional Area wide Monitors Needed
31080	13,291,486 2018	461,000 2017	2	2	0	2	14	0
40140	4,622,361 2018	278,000 2017	2	2	0	2	8	0

¹Max AADT Counts – 2017 latest data available from CA DOT

²Four required began January 1, 2014-15.

Monitors required for SIP or Maintenance Plan: 16 (area wide), 4 (near road)

Monitors Required for PAMS: 2

U.S. EPA Regional Administrator-required monitors per 40 CFR 58, Appendix D 4.3.4: 2

Table 18 Minimum Monitoring Requirements for SO₂

(Note: Refer to section 4.4 of Appendix D of 40 CFR Part 58.)

CBSA	Counties	Total SO ₂ ¹ [tons/year]	Population Weighted Emissions Index ² [million persons-tons per year]	#Active Near Road Monitors	#Required Area Wide Monitors	#Active Area Wide Monitors	#Additional Area wide Monitors Needed
31080	Los Angeles Orange	6,049.52 2014	80,407	0	1	4	0
40140	San Bernardino Riverside	1807.12 2014	8,353	0	1	1	0

¹Using latest NEI data 2014, available on U.S. EPA website: <https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data>

²Calculated by multiplying CBSA population and total SO₂ and dividing product by one million.

Monitors required for SIP or Maintenance Plan: 5

U.S. EPA Regional Administrator-required monitors per 40 CFR 58, Appendix D 4.4.3: 0

Table 19 Minimum Monitoring Requirements for CO

(Note: Refer to section 4.2 of Appendix D of 40 CFR Part 58.)

CBSA	Population and Census Year	#Required Near Road Monitors ¹	#Active Near Road Monitors ²	#Required Area Wide Monitors	#Active Area Wide Monitors
31080	13,291,486 2018	1	1	0	15
40140	4,622,361 2018	1	1	0	7

¹Began January 1, 2015

²Required sites active by January 1, 2015; were collocated with near road NO₂ sites.

Monitors required for SIP or Maintenance Plan: 22 (area wide), 2 (near road)

U.S. EPA Regional Administrator-required monitors per 40 CFR 58, Appendix D 4.4.2: 0

Table 20 Minimum Monitoring Requirements for Pb at NCore

(Note: Refer to section 4.5 of Appendix D of 40 CFR Part 58.)

NCore Site (name, AQS ID)	CBSA	Population and Census Year	# Required Monitors ¹	# Active Monitors	# Additional Monitors Needed
Los Angeles (Main St.) 060371103	30180	13,291,486 2018	0	2 ²	0
Rubidoux 060658001	40140	4,622,361 2018	0	1	0

¹– Requirement rescinded per 79 FR 54395, September 11, 2014.

²– Collocated Monitor.

Table 21 Source Oriented Pb Monitoring (Including Airports)

(Note: Refer to section 4.5 of Appendix D of 40 CFR Part 58.)

Source Name	Address	Pb Emissions (tons per year)	Emission Inventory Source ² and Data Year	Max 3-Month Design Value ¹ [ug/m3]	Design Value Date(third month, year)	# Required Monitors	# Active Monitors	# Additional Monitors Needed
Exide Technologies ³	4010 E. 26th St, Vernon, CA 90058	0.000003	AER 2017	0.03	4;2016	0	2	0
Trojan Battery	9440 Ann St., Santa Fe Springs, CA 90670	0.0154	AER 2017	0.09	9; 2017	0	1	0
Quemetco Inc.	720 S 7th Ave, City Of Industry, CA 91746	0.0172	AER 2017	0.02	5; 2016	0	1	0

¹Consider data from past three years.

²Using latest South Coast AQMD AER data 2017.

³Exide facility is current closed.

Monitors Required for SIP or Maintenance Plan: 0

U.S. EPA Regional Administrator required monitors per 40 CFR 58, Appendix D 4.5(C) c: 0

Table 22 Minimum Monitoring Requirements for Pb, Non-Source, Non-NCore Monitoring

(Note: Refer to section 4.5 of Appendix D of 40 CFR Part 58.)

CBSA	Population and Census Year	Annual Design Value [ug/m3], DV & Years ¹	# Required Area Wide Monitors	# Active Area Wide Monitors	# Additional Monitors Needed
31080	13,291,486 2018	0.01, 2016-2018	0	4	0
40140	4,622,361 2018	0.01 2016-2018	0	1	0

¹DV Years – The three years over which the design value was calculated.

Table 23 Minimum Monitoring Requirements for PAMS

(Note: Refer to section 5.0 of Appendix D of 40 CFR Part 58.)

Area	Type	# Required PAMS Sites	# Active PAMS Sites	# PAMS Sites Needed
South Coast AQMD Monitoring Area	NCore Collocated	2	2	0

Table 24 Collocated Manual PM2.5, PM10, and Non-NCore Pb Networks

(Note: Refer to section 3.2.5, 3.3.5, 3.3.1, and 3.3.4.3 of Appendix A, 40 CFR Part 58.)

Pollutant	Method Code	# Primary Monitors	# Required Collocated Monitors	# Active Collocated Monitors
PM2.5 RAAS	120	2	1	1
PM2.5 Partisol 2025	145	14	2	3
PM2.5 Partisol 2000	143	3	1	1
PM10 Hi Vol GMW 1200	063	14	2	2
PM10 Tisch TE 6001	141	6	1	1
Pb (TSP Hi-Vol)	110 (Non Source)	7	1	2
Pb (Tsp Hi-Vol)	110 (Source)	4	1	1

Table 25 Collocated Automated (continuous) PM2.5 Network

(Note: Refer to section 3.2.5 & 3.3.5 of Appendix A, 40 CFR Part 58.)

Method Code	# Primary Monitors	# Required Collocated Monitors	# Active Collocated Monitors ¹
None	0	0	6

¹No FEM PM2.5 BAMs are listed as primary monitors; therefore no collocation requirement exists but all are collocated with FRM monitors.

Data Submittal and Archiving Requirements

As required in 40 CFR 58.16(a), data is reported via AQS including all ambient air quality data and associated quality assurance data for SO₂, CO, O₃, NO₂, NO, NO_x, NR NO₂, NO, NCore NO_y, Pb-TSP mass concentration, Pb-PM₁₀ mass concentration, PM₁₀ mass concentration, PM_{2.5} mass concentration, filter-based PM_{2.5} FRM/FEM field blank mass, sampler-generated average daily temperature, and sampler-generated average daily pressure, chemically speciated PM_{2.5} mass concentration data, PM_{10-2.5} mass concentration, meteorological data from NCore and PAMS sites, average daily temperature\average daily pressure for Pb sites and metadata records\information as specified by the AQS Data Coding Manual through December 31, 2018.

A data certification letter has been submitted to the RA certifying applicable data collected at all SLAMS. This includes all FRM, FEM, Approved Regional Method (ARM), and Special Purpose Monitors (SPM) that meet criteria in Appendix A, to part 58, for January 1 through December 31, 2018.

APPENDIX A

South Coast AQMD Network Depictions

Ozone (O₃) Monitoring Stations



Last Updated: May 16, 2019

Figure 1 South Coast AQMD Ozone Monitoring Locations

PM 10 Monitoring Stations

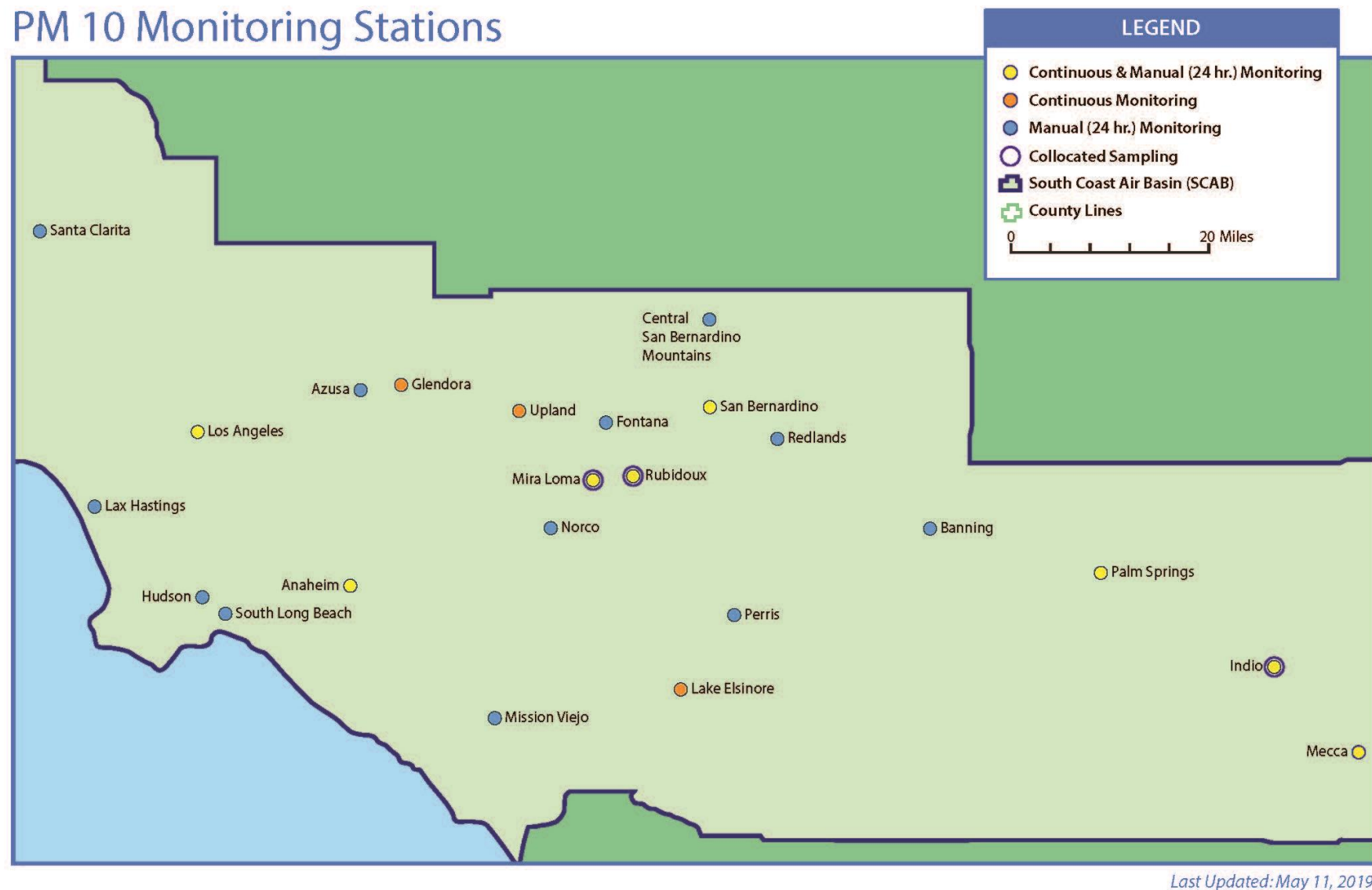
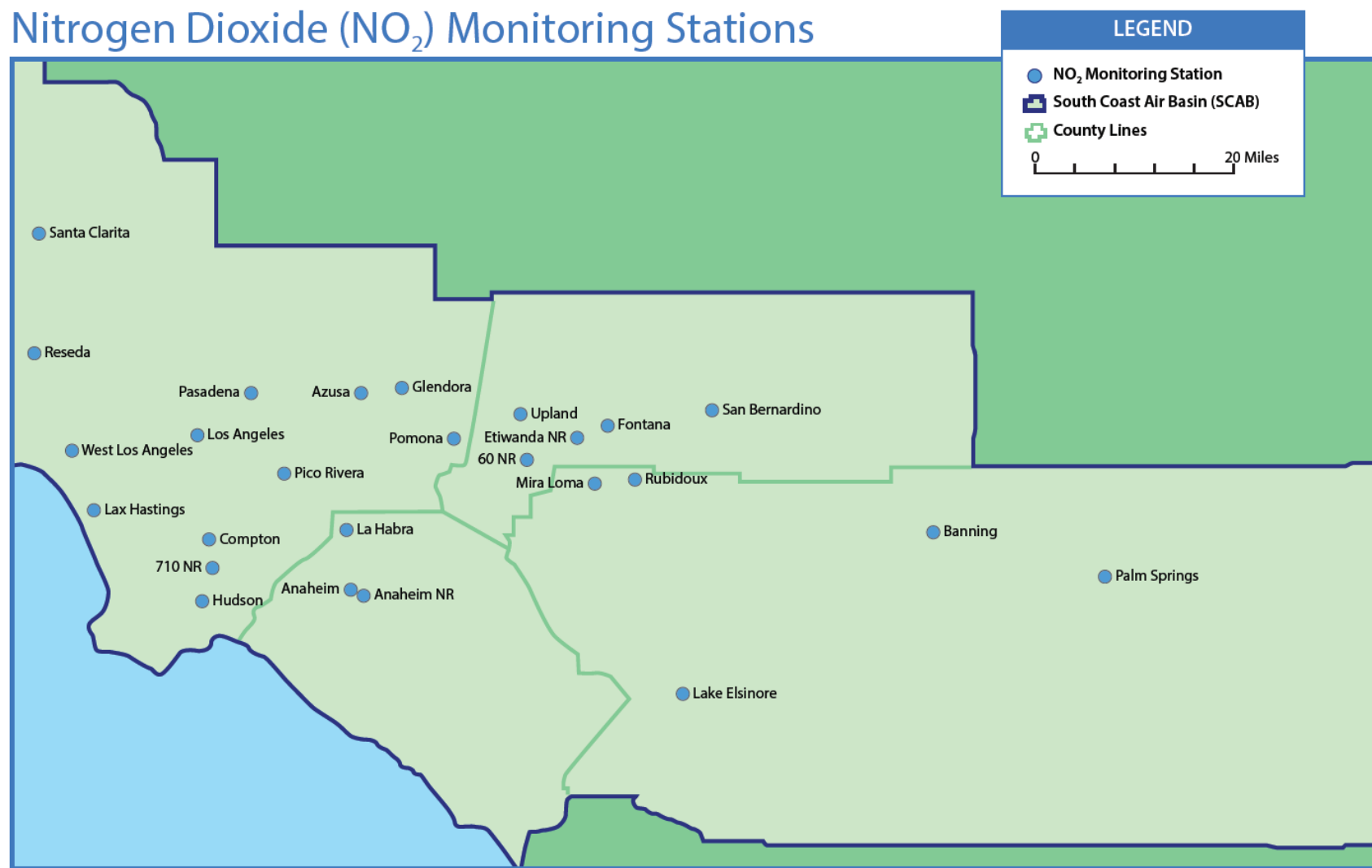


Figure 2 South Coast AQMD PM10 Monitoring

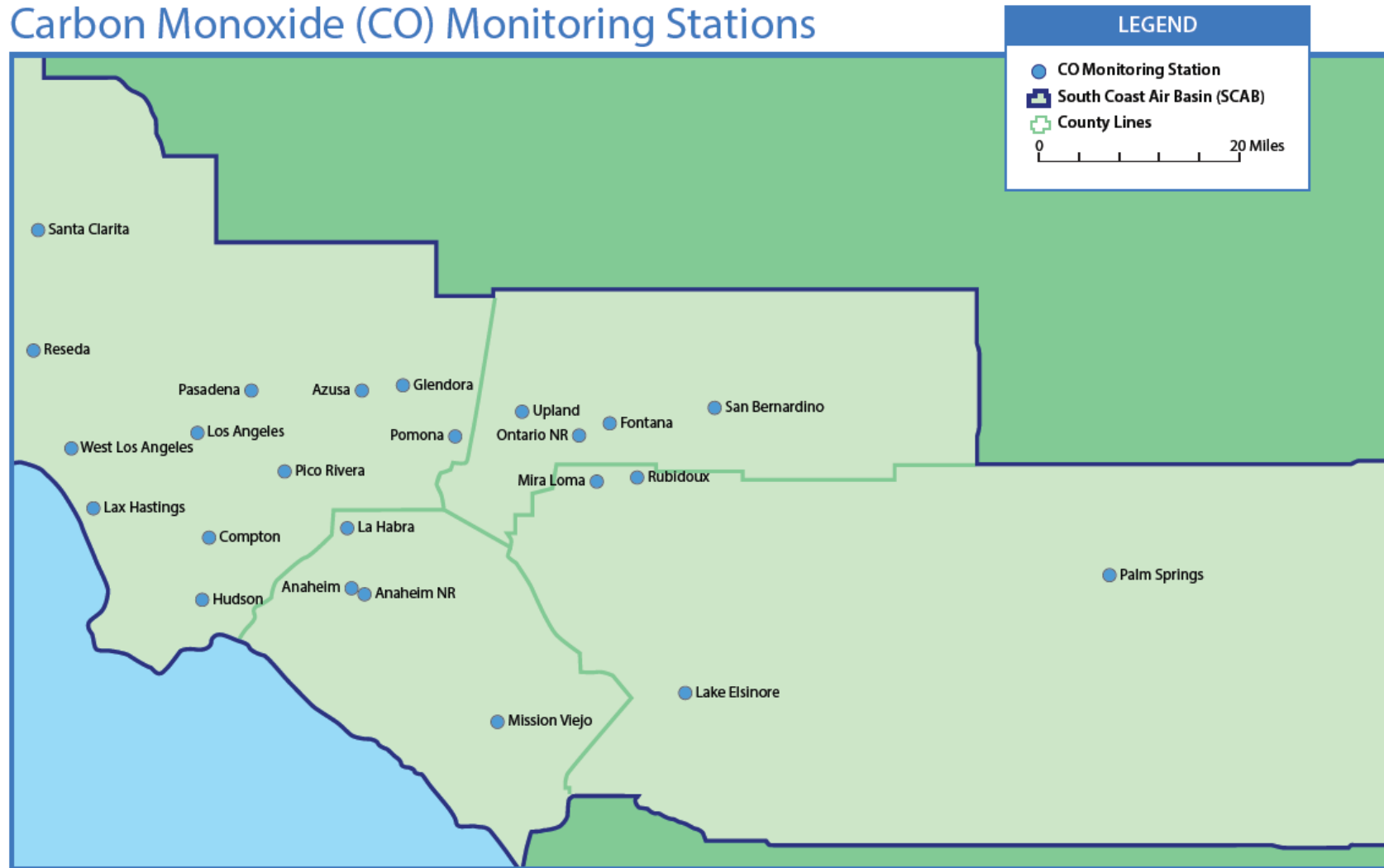
Nitrogen Dioxide (NO₂) Monitoring Stations



Last Updated: May 16, 2019

Figure 3 South Coast AQMD Monitoring Locations for Nitrogen

Carbon Monoxide (CO) Monitoring Stations



Last Updated: May 16, 2019

Figure 4 South Coast AQMD Monitoring Locations for Carbon Monoxide

Sulfur Dioxide (SO₂) Monitoring Stations

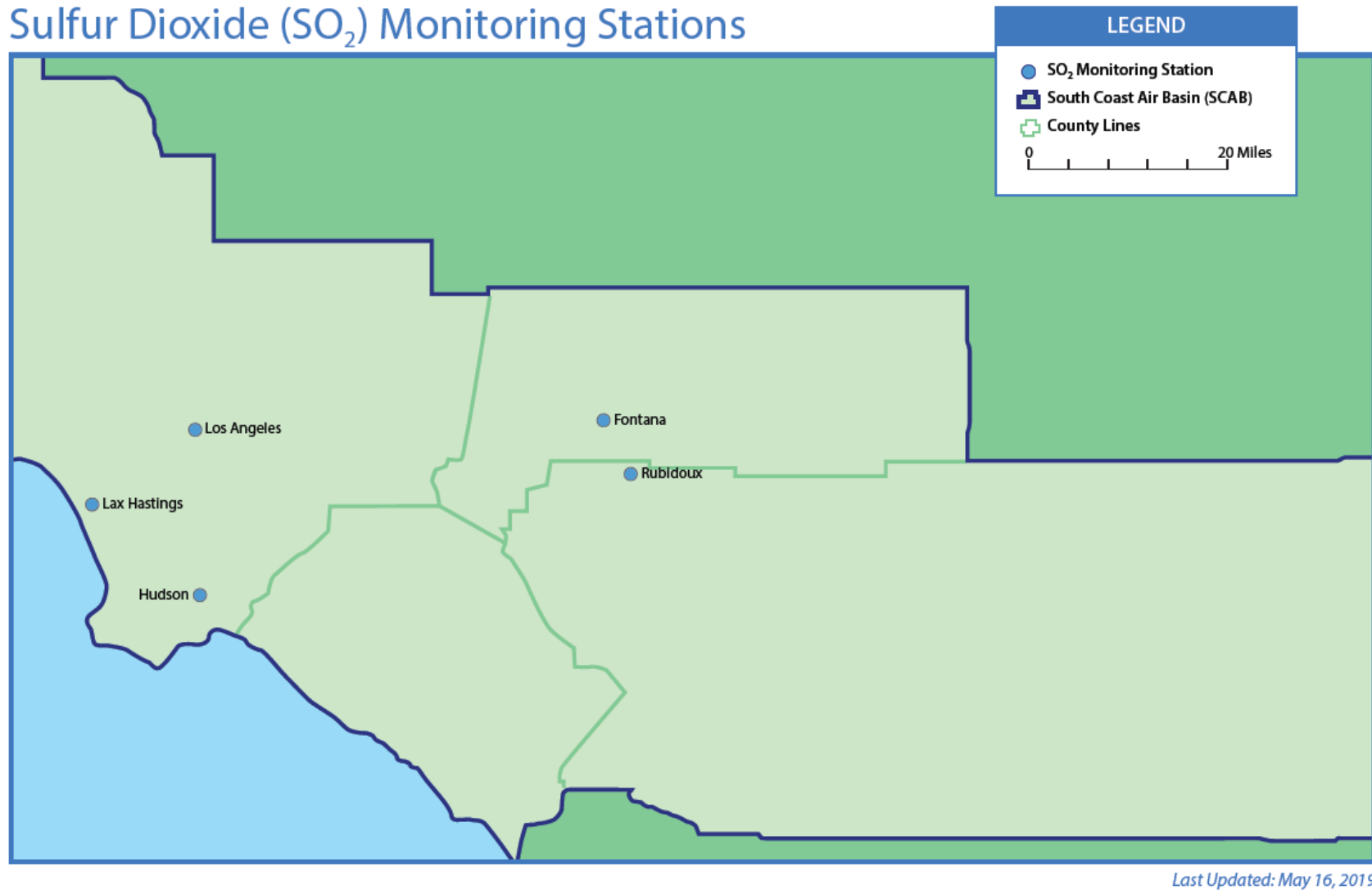
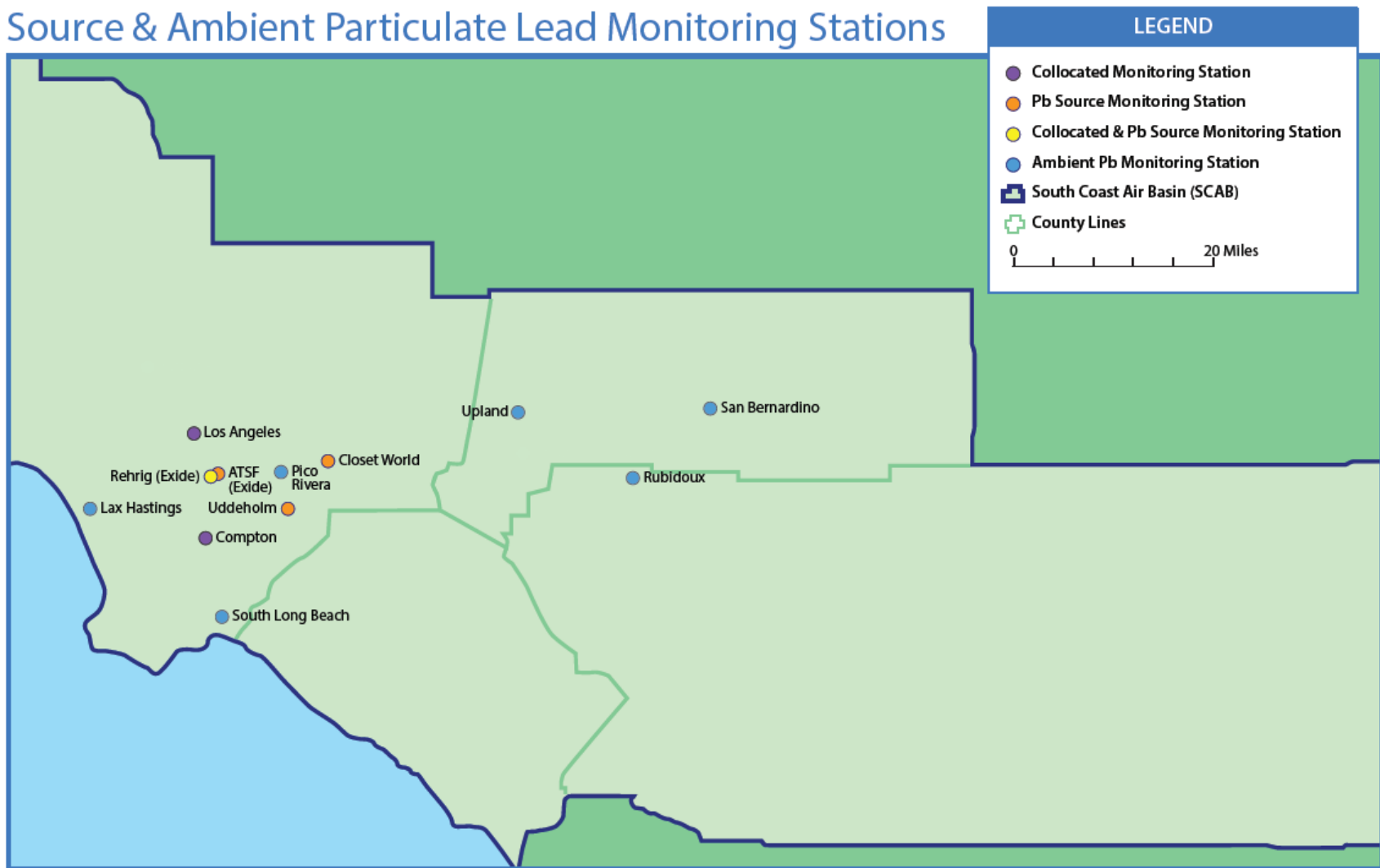


Figure 5 South Coast AQMD Monitoring Locations for Sulfur Dioxide

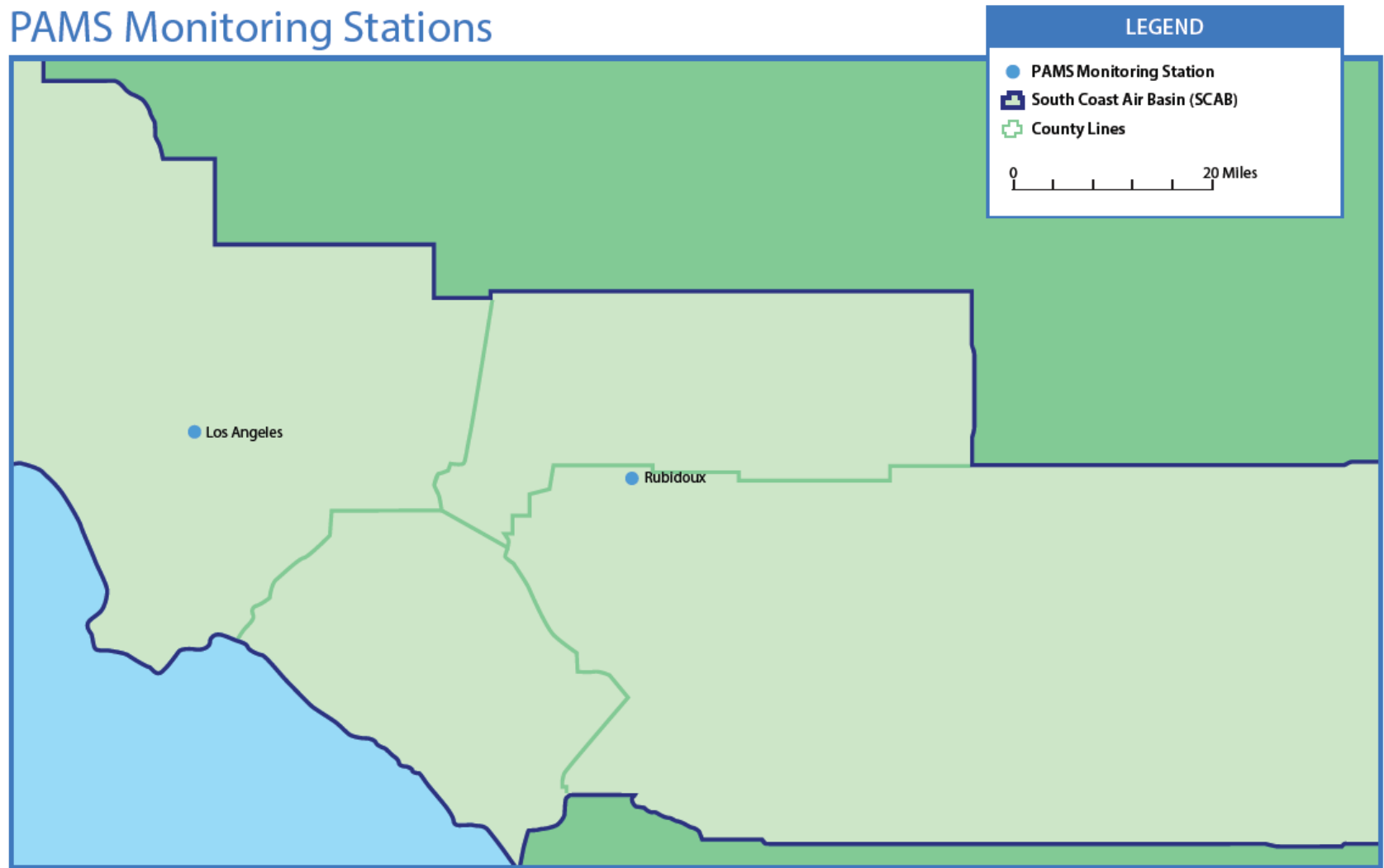
Source & Ambient Particulate Lead Monitoring Stations



Last Updated: May 16, 2019

Figure 6 South Coast AQMD Source and Ambient Particulate Lead Monitoring Locations

PAMS Monitoring Stations



Last Updated: May 11, 2019

Figure 7 South Coast AQMD PAMS Monitoring Locations

PM 2.5 Monitoring Stations

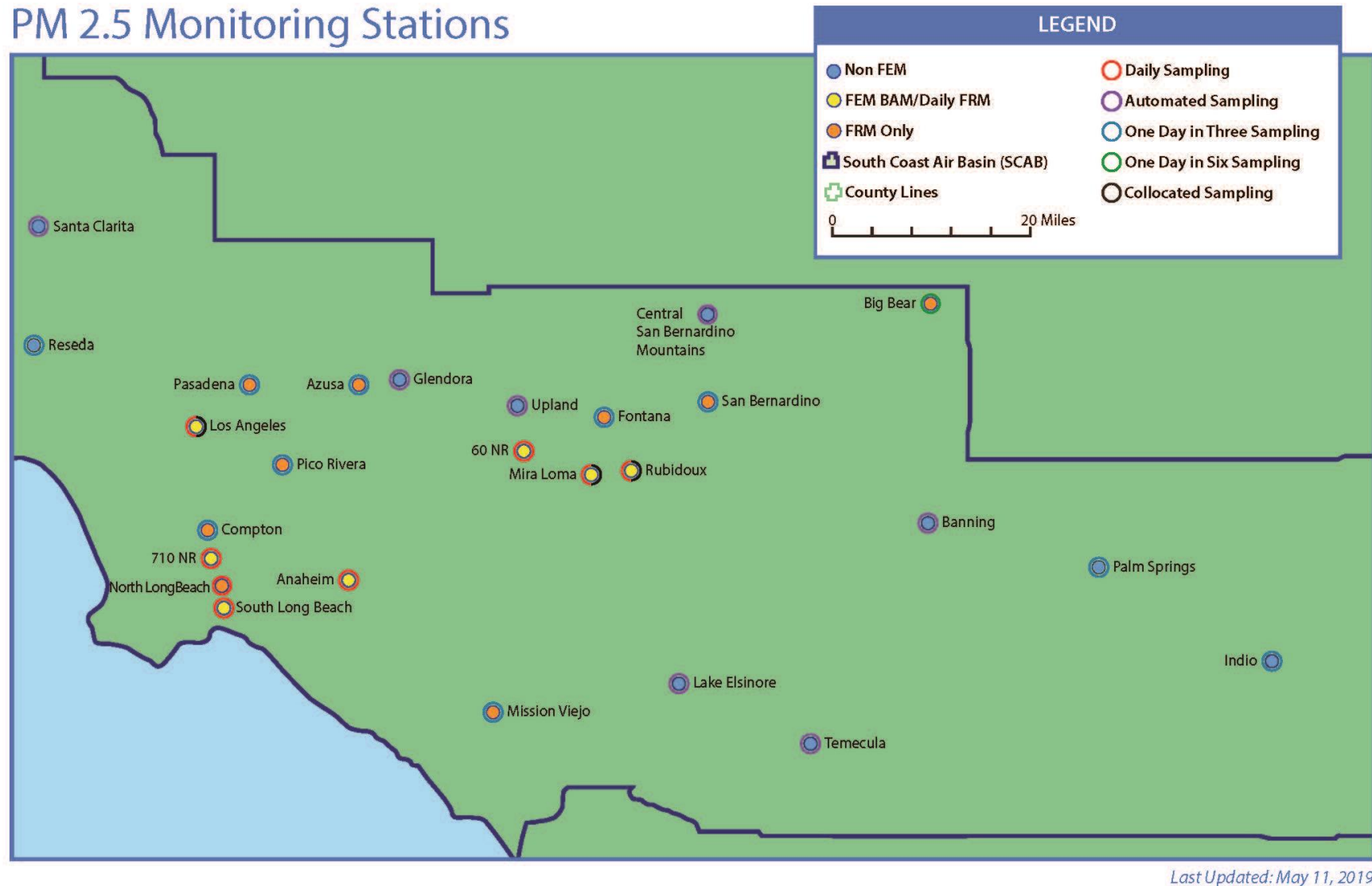


Figure 8 South Coast AQMD PM2.5 Monitoring Locations

**2018 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

2018		Carbon Monoxide a)							Ozone b)							Nitrogen Dioxide c)				Sulfur Dioxide d)					
		No. Days Of Data	Max Conc. In ppm 1-hour	Max Conc. In ppm 8-hour	No. Days Of Data	Max Conc. In ppm 1-hour	Max Conc. In ppm 8-hour	Fourth High Conc. ppm 8-hour	Number of Days Standard Exceeded						No. Days Of Data	Max Conc. In ppb 1-hour	98th Percentile Conc. ppb 1-hour	Annual Average AAM Conc. ppb	No. Days Of Data	Max Conc. In ppb 1-hour	99th Percentile Conc. ppb 1-hour				
									Old Federal >0.124 ppm 1-hour	Current Federal >0.070 ppm 8-hour	2008 Federal >0.075 ppm 8-hour	1997 Federal >0.084 ppm 8-hour	Current State >0.09 ppm 1-hour	Current State >0.070 ppm 8-hour											
Source/Receptor Area No. Location	Station No.																								
LOS ANGELES COUNTY																									
1 Central LA	87	363	2.0	1.7	359	0.098	0.073	0.071	0	4	0	0	2	4	365	70.1	57.2	18.5	358	17.9	2.8				
2 Northwest Coastal LA County	91	357	1.6	1.3	364	0.094	0.073	0.068	0	2	0	0	0	2	242	64.7	46.1	12.6	--	--	--				
3 Southwest Coastal LA County	820	340	1.8	1.5	365	0.074	0.065	0.060	0	0	0	0	0	0	338	59.6	49.8	9.2	365	11.5	5.3				
4 South Coastal LA County 1	72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
4 South Coastal LA County 2	77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
4 South Coastal LA County 3	33	363	4.7	2.1	364	0.074	0.063	0.053	0	0	0	0	0	0	359	85.3	62.7	17.3	365	10.5	9.4				
4 I-710 Near Road**	32	--	--	--	--	--	--	--	--	--	--	--	--	--	355	90.3	79.1	22.3	--	--	--				
6 West San Fernando Valley	74	357	3.4	2.1	362	0.120	0.101	0.094	0	49	23	12	14	49	365	57.2	50.1	12.1	--	--	--				
8 West San Gabriel Valley	88	363	2.0	1.4	365	0.112	0.090	0.085	0	19	8	4	8	19	364	68.2	54.4	14.4	--	--	--				
9 East San Gabriel Valley 1	60	364	1.4	1.0	364	0.139	0.099	0.097	3	42	23	10	24	42	363	70.8	56.8	14.9	--	--	--				
9 East San Gabriel Valley 2	591	363	1.0	0.8	365	0.140	0.104	0.102	5	46	27	10	32	46	349	55.2	44.2	9.7	--	--	--				
10 Pomona/Walnut Valley	75	363	2.1	1.8	362	0.112	0.092	0.081	0	10	8	3	7	10	365	67.9	60.4	19.4	--	--	--				
11 South San Gabriel Valley	85	342	2.0	1.8	352	0.115	0.082	0.074	0	5	2	0	3	5	356	76.8	59.7	18.3	--	--	--				
12 South Central LA County	112	355	4.7	3.5	365	0.075	0.063	0.058	0	0	0	0	0	0	335	68.3	55.6	15.0	--	--	--				
13 Santa Clarita Valley	90	363	1.0	0.8	365	0.132	0.106	0.097	3	52	36	12	21	52	365	58.9	37.9	10.9	--	--	--				
ORANGE COUNTY																									
16 North Orange County	3177	363	3.0	1.4	365	0.111	0.077	0.071	0	4	3	0	3	4	365	67.1	50.4	13.0	--	--	--				
17 Central Orange County	3176	357	2.3	1.9	365	0.112	0.071	0.065	0	1	0	0	1	1	365	66.0	54.5	13.7	--	--	--				
17 I-5 Near Road**	3131	319	2.7	2.2	--	--	--	--	--	--	--	--	--	--	348	61.7	55.8	20.8	--	--	--				
18 North Coastal Orange County	3195	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
19 Saddleback Valley	3812	298	1.2	0.9	365	0.121	0.088	0.074	0	9	2	2	2	9	--	--	--	--	--	--	--				
RIVERSIDE COUNTY																									
22 Corona/Norco Area	4155	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
23 Metropolitan Riverside County 1	4144	363	2.2	2.0	365	0.123	0.101	0.096	0	53	34	14	22	53	364	55.4	50.5	14.3	360	1.7	1.6				
23 Metropolitan Riverside County 3	4165	356	2.6	2.4	355	0.129	0.107	0.097	1	57	32	12	21	57	358	54.5	50.4	13.7	--	--	--				
24 Perris Valley	4149	--	--	--	365	0.117	0.103	0.095	0	67	47	19	31	67	--	--	--	--	--	--	--				
25 Elsinore Valley	4158	359	1.1	0.8	365	0.116	0.095	0.089	0	30	26	7	16	30	359	41.3	36.4	8.5	--	--	--				
26 Temecula Valley	4031	--	--	--	363	0.107	0.085	0.077	0	15	5	1	2	15	--	--	--	--	--	--	--				
29 San Geronio Pass	4164	--	--	--	363	0.119	0.106	0.100	0	69	43	22	33	69	344	50.6	46.5	8.5	--	--	--				
30 Coachella Valley 1**	4137	350	1.1	1.0	362	0.111	0.099	0.093	0	56	22	10	11	56	364	42.6	35.4	6.8	--	--	--				
30 Coachella Valley 2**	4157	--	--	--	359	0.106	0.091	0.089	0	49	28	8	4	49	--	--	--	--	--	--	--				
30 Coachella Valley 3**	4032	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
SAN BERNARDINO COUNTY																									
32 Northwest San Bernardino Valley	5175	363	1.7	1.2	363	0.133	0.111	0.106	6	52	32	14	25	52	355	58.7	48.9	14.7	--	--	--				
33 I-10 Near Road**	5035	337	1.6	1.3	--	--	--	--	--	--	--	--	--	--	339	88.3	67.7	27.2	--	--	--				
33 CA-60 Near Road**	5036	--	--	--	--	--	--	--	--	--	--	--	--	--	357	79.4	71.3	30.4	--	--	--				
34 Central San Bernardino Valley 1	5197	364	1.9	1.1	365	0.141	0.111	0.106	7	69	47	18	38	69	365	63.0	55.9	18.3	362	2.9	2.5				
34 Central San Bernardino Valley 2	5203	360	2.7	2.5	362	0.138	0.116	0.107	7	102	71	33	63	102	362	57.3	49.9	15.8	--	--	--				
35 East San Bernardino Valley	5204	--	--	--	365	0.136	0.114	0.111	4	94	66	26	53	94	--	--	--	--	--	--	--				
37 Central San Bernardino Mountains	5181	--	--	--	362	0.142	0.125	0.105	3	113	91	46	57	113	--	--	--	--	--	--	--				
38 East San Bernardino Mountains	5818	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
DISTRICT MAXIMUM			4.7	3.5		0.142	0.125	0.111	7	113	91	46	63	113		90.3	79.1	30.4		17.9	9.4				
SOUTH COAST AIR BASIN			4.7	3.5		0.142	0.125	0.111	10	141	108	59	84	141		90.3	79.1	30.4		17.9	9.4				

* Incomplete data.
** Salton Sea Air Basin
-- Pollutant not monitored
ppm – Parts Per Million parts of air, by volume
ppb – Parts Per Billion parts of air, by volume
AAM – Annual Arithmetic Mean

a) The federal and state 8-hour CO standards (9 ppm and 9.0 ppm) along with the federal and state 1-hour CO standards (35 ppm and 20 ppm) were not exceeded.
b) The current (2015) O3 federal standard was revised effective December 28, 2015.
c) The NO2 federal 1-hour standard is 100 ppb and the annual standard is annual arithmetic mean NO2 > 0.0534 ppm (53.4 ppb). The state 1-hour and annual standards are 0.18 ppm and 0.030 ppm.
d) The federal SO2 1-hour standard is 75 ppb (0.075 ppm). The state standards are 1-hour average SO2 > 0.25 ppm (250 ppb) and 24-hour average SO2 > 0.04 ppm (40 ppb).
Four near-road sites measuring one or more of the pollutants PM2.5, CO and/or NO2 are operating near the following freeways: I-5, I-10, CA-60 and I-710.

The final version of the Air Quality Data Summary can be found at:

<http://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year>

For information on the current standard levels and most recent revisions please refer to "Appendix II – Current Air Quality" of the "2016 AQMP" which can be accessed at: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp-appendix-ii.pdf?sfvrsn=6>.

Maps showing the source/receptor area boundaries can be accessed via the Internet by entering your address in the AQMD Current Hourly Air Quality Map at: <http://www2.aqmd.gov/webapp/qsiaq2/VEMap3D.aspx>. A printed map or copy of the AQMP Appendix II is also available free of charge from the AQMD Public Information Center at 1-800-CUT-SMOG.

Figure 9 South Coast AQMD 2019 Air Quality Data Summary

**2018 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

2018 Source/Receptor Area No. Location		Station No.	Suspended Particulates PM10 ^{e)}				Fine Particulates PM2.5 ^{e)}				Lead ^{g,++}		PM10 Sulfate ^{h)}			
			No. Days of Data	Max. Conc. In µg/m ³ 24-hour	No. (%) Samples Exceeding Standards		Annual Average Conc. ^{f)} µg/m ³	No. Days of Data	Max. Conc. In µg/m ³ 24-hour	98 th Percentile Conc. In µg/m ³ 24-hour	No. (%) Exceeding Federal Std >35 µg/m ³ 24-hour	Annual Average Conc. ^{f)} µg/m ³	Max. Monthly Average Conc. µg/m ³	Max. 3-Months Rolling Averages µg/m ³	No. Days of Data	Max. Conc. In µg/m ³ 24-hour
					Federal >150 µg/m ³ 24-hour	State >50 µg/m ³ 24-hour										
LOS ANGELES COUNTY																
1 Central LA	87	363	81	0	31 (9%)	34.1	344	43.80	30.50	3 (0.9%)	12.58	0.011	0.011	53	4.5	
2 Northwest Coastal LA County	91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 Southwest Coastal LA County	820	48	45	0	0	20.5	--	--	--	--	--	0.005	0.004	48	5.2	
4 South Coastal LA County 1	72	--	--	--	--	--	342	46.40	29.80	2 (0.6%)	10.99	--	--	--	--	--
4 South Coastal LA County 2	77	58	55	0	1 (2%)	23.9	330	47.10	27.70	2 (0.6%)	11.15	0.006	0.007	58	4.0	
4 South Coastal LA County 3	33	57	84	0	4 (7%)	32.3	--	--	--	--	--	--	--	57	5.0	
4 I-710 Near Road ^{##}	32	--	--	--	--	--	359	46.10	31.90	4 (1.1%)	12.75	--	--	--	--	--
6 West San Fernando Valley	74	--	--	--	--	--	106	31.00	22.60	0	10.32	--	--	--	--	--
8 West San Gabriel Valley	88	--	--	--	--	--	121	32.50	29.50	0	10.28	--	--	--	--	--
9 East San Gabriel Valley 1	60	60	78	0	10 (17%)	32.2	119	30.20	25.90	0	10.35	--	--	60	4.0	
9 East San Gabriel Valley 2	591	317	101	0	20 (6%)	27.1	--	--	--	--	--	--	--	--	--	--
10 Pomona/Walnut Valley	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11 South San Gabriel Valley	85	--	--	--	--	--	113	35.40	28.10	0	12.31	0.009	0.009	--	--	--
12 South Central LA County	112	--	--	--	--	--	117	43.00	34.20	1 (0.9%)	12.96	0.009	0.011	--	--	--
13 Santa Clarita Valley	90	54	49	0	0	23.4	--	--	--	--	--	--	--	54	3.5	
ORANGE COUNTY																
16 North Orange County	3177	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17 Central Orange County	3176	320	129	0	13 (4%)	27.2	353	54.10	28.90	3 (0.8%)	11.02	--	--	61	4.1	
17 I-5 Near Road ^{##}	3131	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18 North Coastal Orange County	3195	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19 Saddleback Valley	3812	59	55	0	1 (2%)	19.0	107	20.80	18.50	0	8.31	--	--	59	4.0	
RIVERSIDE COUNTY																
22 Corona/Norco Area	4155	58	100	0	3 (5%)	30.2	--	--	--	--	--	--	--	--	--	--
23 Metropolitan Riverside County 1	4144	356	126	0	132 (37%)	44.0	354	50.70	26.30	2 (0.6%)	12.41	0.009	0.007	117	4.1	
23 Metropolitan Riverside County 3	4165	354	148	0	168 (47%)	49.4	349	64.80	32.80	4 (1.1%)	13.87	--	--	59	3.5	
24 Perris Valley	4149	60	64	0	3 (5%)	29.7	--	--	--	--	--	--	--	60	3.2	
25 Elsinore Valley	4158	342	104	0	9 (3%)	22.4	--	--	--	--	--	--	--	--	--	--
26 Temecula Valley	4031	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29 San Geronio Pass	4164	61	39	0	0	19.4	--	--	--	--	--	--	--	61	2.9	
30 Coachella Valley 1**	4137	359	117	0	7 (2%)	21.0	122	30.20	14.30	0	6.02	--	--	61	2.7	
30 Coachella Valley 2**	4157	353	146	0	43 (12%)	33.2	122	28.70	17.00	0	8.32	--	--	118	3.7	
30 Coachella Valley 3**	4032	321	145	0	100 (31%)	42.9	--	--	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																
32 Northwest San Bernardino Valley	5175	322	73	0	14 (4%)	32.3	--	--	--	--	--	--	--	--	--	--
33 I-10 Near Road ^{##}	5035	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33 CA-60 Near Road ^{##}	5036	--	--	--	--	--	357	47.90	30.40	5 (1.4%)	14.31	--	--	--	--	--
34 Central San Bernardino Valley 1	5197	56	64	0	9 (16%)	34.1	110	29.20	26.80	0	11.13	--	--	56	3.9	
34 Central San Bernardino Valley 2	5203	355	129	0	25 (7%)	30.2	114	30.10	22.90	0	11.17	0.008	0.008	58	3.8	
35 East San Bernardino Valley	5204	59	74	0	2 (3%)	25.9	--	--	--	--	--	--	--	59	3.6	
37 Central San Bernardino Mountains	5181	59	78	0	1 (2%)	19.5	--	--	--	--	--	--	--	59	2.4	
38 East San Bernardino Mountains	5818	--	--	--	--	--	54	17.30	16.00	0	6.80	--	--	--	--	--
DISTRICT MAXIMUM			148	0	168	49.4	--	64.8	34.2	5	14.31	0.011	0.011	--	5.2	--
SOUTH COAST AIR BASIN			148	0	185	49.4	--	64.8	34.2	11	14.31	0.011	0.011	--	5.2	--

* Incomplete data due to the site improvement.

** Salton Sea Air Basin

µg/m³ – Micrograms per cubic meter of air
AAM – Annual Arithmetic Mean

-- Pollutant not monitored

e) PM10 statistics listed above are based on combined Federal Reference Method (FRM) and Federal Equivalent Method (FEM) data.

f) State annual average (AAM) PM10 standard is > 20 µg/m³. Federal annual PM10 standard (AAM > 50 µg/m³) was revoked in 2006.

g) PM2.5 statistics listed above are for the FRM data only. FEM PM2.5 continuous monitoring instruments were operated at some of the above locations for real-time alerts and forecasting only. PM2.5 concentrations above the 24-hour standard attributed to wildfire smoke and fireworks are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.

h) Both Federal and State standards are annual average (AAM) > 12.0 µg/m³.

i) Federal lead standard is 3-months rolling average > 0.15 µg/m³; state standard is monthly average¹ 1.5 µg/m³. Lead standards were not exceeded.

j) State sulfate standard is 24-hour² 25 µg/m³. There is no federal standard for sulfate.

+ High PM10 (≥ 155 µg/m³) data recorded in the Coachella Valley and the Basin (due to high winds) are excluded because they likely meet the exclusion criteria specified in the U.S. EPA Exceptional Event Rule. Exceptional event demonstrations will be submitted to U.S. EPA for events that have regulatory significance.

++ Higher lead concentrations were recorded at near-source monitoring sites immediately downwind of stationary lead sources. Maximum monthly and 3-month rolling averages recorded were 0.096 µg/m³ and 0.059 µg/m³, respectively.

Four near-road sites measuring one or more of the pollutants PM2.5, CO and/or NO2 are operating near the following freeways: I-5, I-10, CA-60 and I-710.

The final version of the Air Quality Data Summary can be found at:

<http://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year>

Figure 9 South Coast AQMD 2019 Air Quality Data Summary Continued

APPENDIX B
Detailed Site Information

Detailed information for air monitoring locations are included in site reports. For information on monitoring objectives, purposes and scales, please refer to the main text of this plan.

1. Anaheim
2. Anaheim Route 5 Near Road
3. ATSF (Exide)
4. Azusa
5. Banning Airport
6. Big Bear
7. Central San Bernardino Mountains
8. Closet World (Quemetco)
9. Compton
10. Fontana
11. Glendora
12. Indio
13. La Habra
14. Lake Elsinore
15. LAX Hastings
16. Long Beach (Hudson)
17. Long Beach Route 710 Near Road
18. Long Beach North
19. Long Beach South
20. Los Angeles (Main St.)
21. Mecca (Saul Martinez)
22. Mira Loma (Van Buren)
23. Mission Viejo
24. Norco
25. Ontario Etiwanda Near Road
26. Ontario Route 60 Near Road
27. Palm Springs
28. Pasadena
29. Perris
30. Pico Rivera #2
31. Pomona
32. Redlands
33. Rehrig (Exide)
34. Reseda
35. Rubidoux
36. San Bernardino
37. Santa Clarita
38. Temecula
39. Uddelholm (Trojan Battery)
40. Upland
41. West Los Angeles

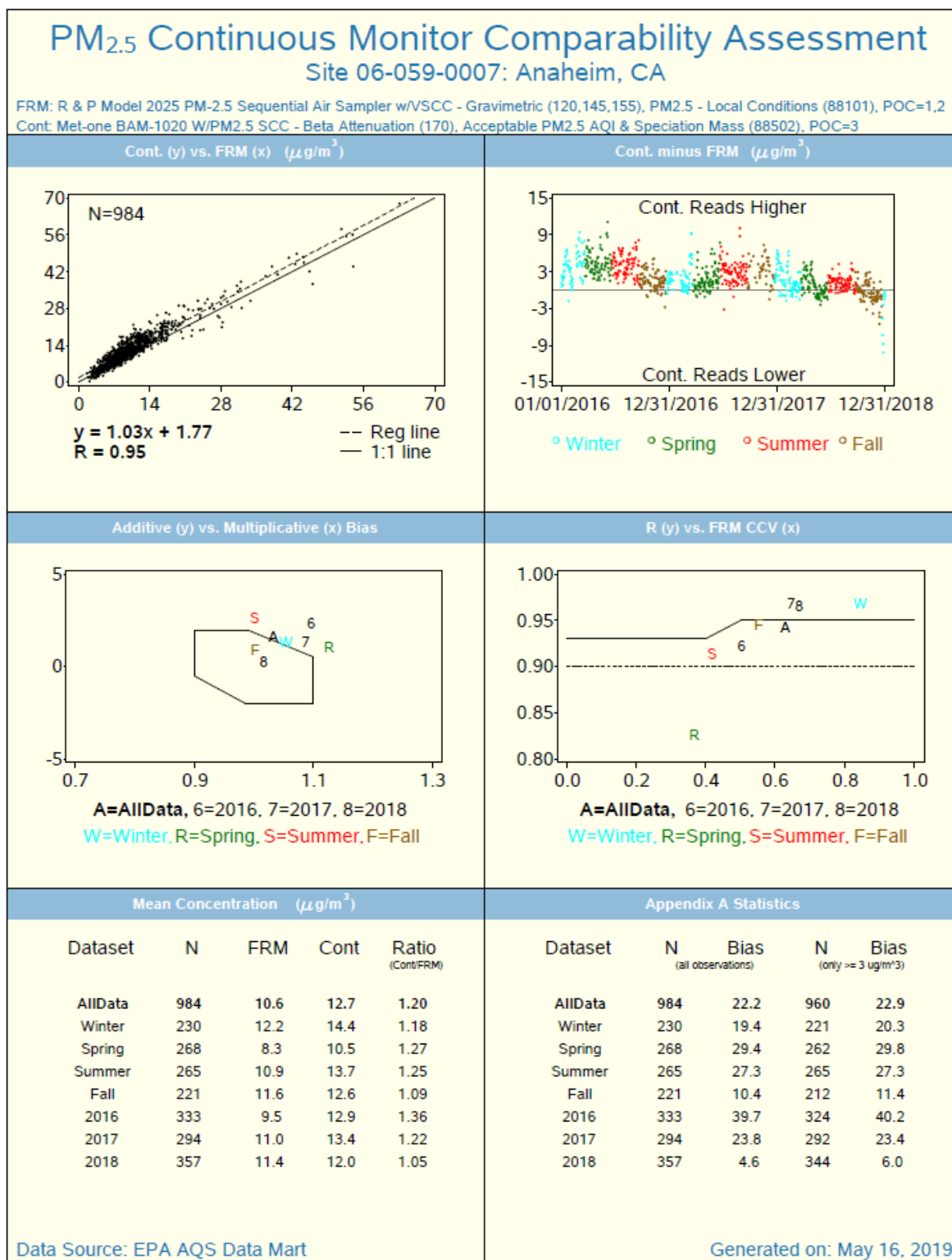
Table 26 Selected POC, Parameter and Method Codes¹

Instrument	Pollutant	POC Code	Method Code	Parameter Code
910	NATTS VOCs	4	172	43218, 43372, 43505, 43551, 43552, 43802, 43803, 43804, 43815, 43817, 43824, 43829, 43843, 43860, 45109, 45201, 45202, 45203, 45204, 45220, 45805, 45807.
910	PAMS VOCs	2, 7 or 8	126	43000, 43102, 43202, 43203, 43204, 43205, 43206, 43212, 43214, 43216, 43217, 43220, 43221, 43224, 43226, 43227, 43230, 43231, 43232, 43233, 43235, 43238, 43242, 43243, 43244, 43245, 43247, 43248, 43249, 43250, 43252, 43253, 43261, 43262, 43263, 43280, 43284, 43285, 43291, 43954, 43960, 45109, 45201, 45202, 45203, 45204, 45207, 45208, 45209, 45210, 45211, 45212, 45213, 45218, 45219, 45220, 45225.
ATEC 8000	PAMS Carbonyls	2 or 8	102	43502, 43503.
GMW 1200	PM10	1,2, 4, or 6	063	81102
Tisch TE-6001	PM10	1,2, 4, or 6	141	81102
Anderson RAAS	PM2.5 Particulate	1 or 2	120	88101
Partisol 2025	PM2.5 Particulate	1 or 2	145	88101
Partisol 2000	PM2.5 Particulate	1, 2, or 3	143	88101
Met One SASS	Speciated PM2.5	11 or 12	812	88301, 88306, 88302, 88403.
TSP Hi Vol	Pb	1, 2, or 3	110	14129
Met One SASS	Speciated PM2.5	11 or 12	810	68108, 68107, 68106, 68105, 68104, 68103, 88502.
Met One SASS	Speciated PM2.5	11 or 12	780	68101, 68109, 68102.
Met One SASS	Speciated PM2.5	11 or 12	811	88102, 88103, 88107, 88110, 88111, 88118, 88115, 88112, 88113, 88114, 88126, 88128, 88132, 88134, 88136, 88152, 88180, 88176, 88154, 88165, 88168, 88169, 88160, 88161, 88179, 88164, 88183, 88167.
Met One SASS	Speciated PM2.5	11 or 12	816	88380, 88383, 88384, 88385, 88370, 88374, 88375, 88376, 88377.
Xontech 924	CR6	4 or 5	920	12115
Xontech 924	Carbonyls	4	102	43502, 43503.
Xontech 924	Metals	2 or 4	110	85102, 85103, 85105, 85110, 85128, 85132, 85136.

¹ Sampler and monitor locations along with specific method codes are identified in the detailed site plans, Appendix B

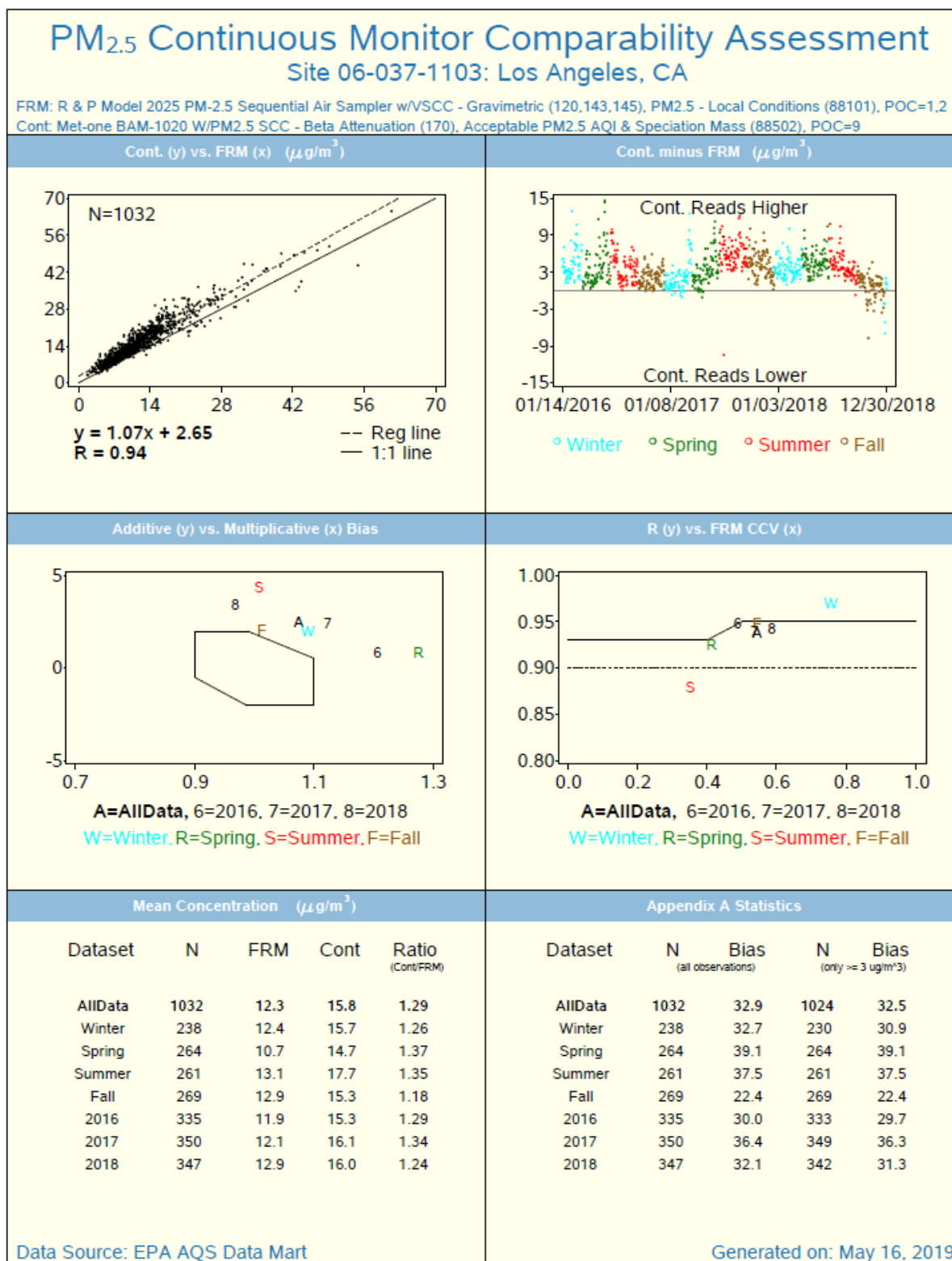
Anaheim

(FRM POC: 1 - FEM POC: 3)



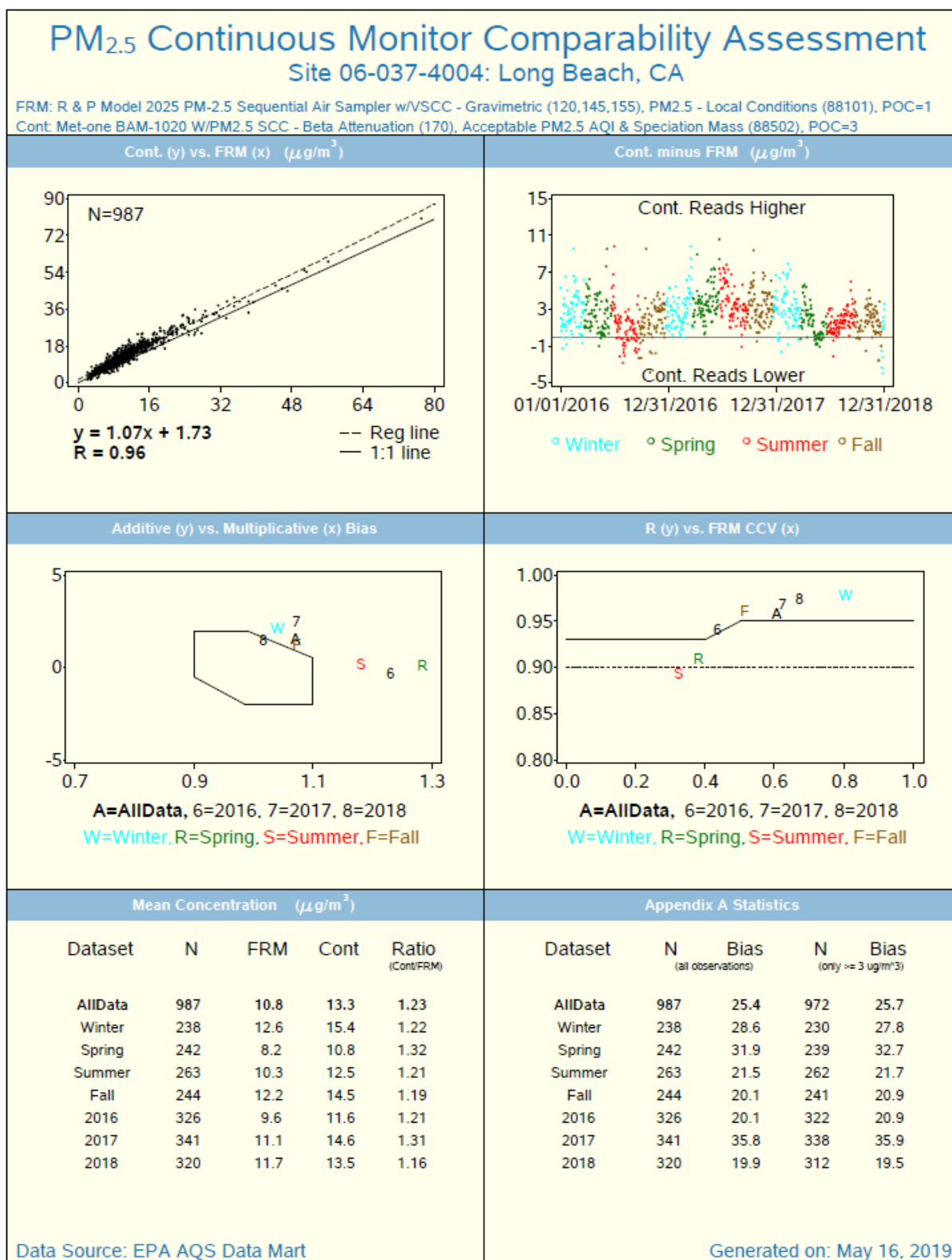
Los Angeles (Main St.)

(FRM POC: 1 - FEM POC: 9)



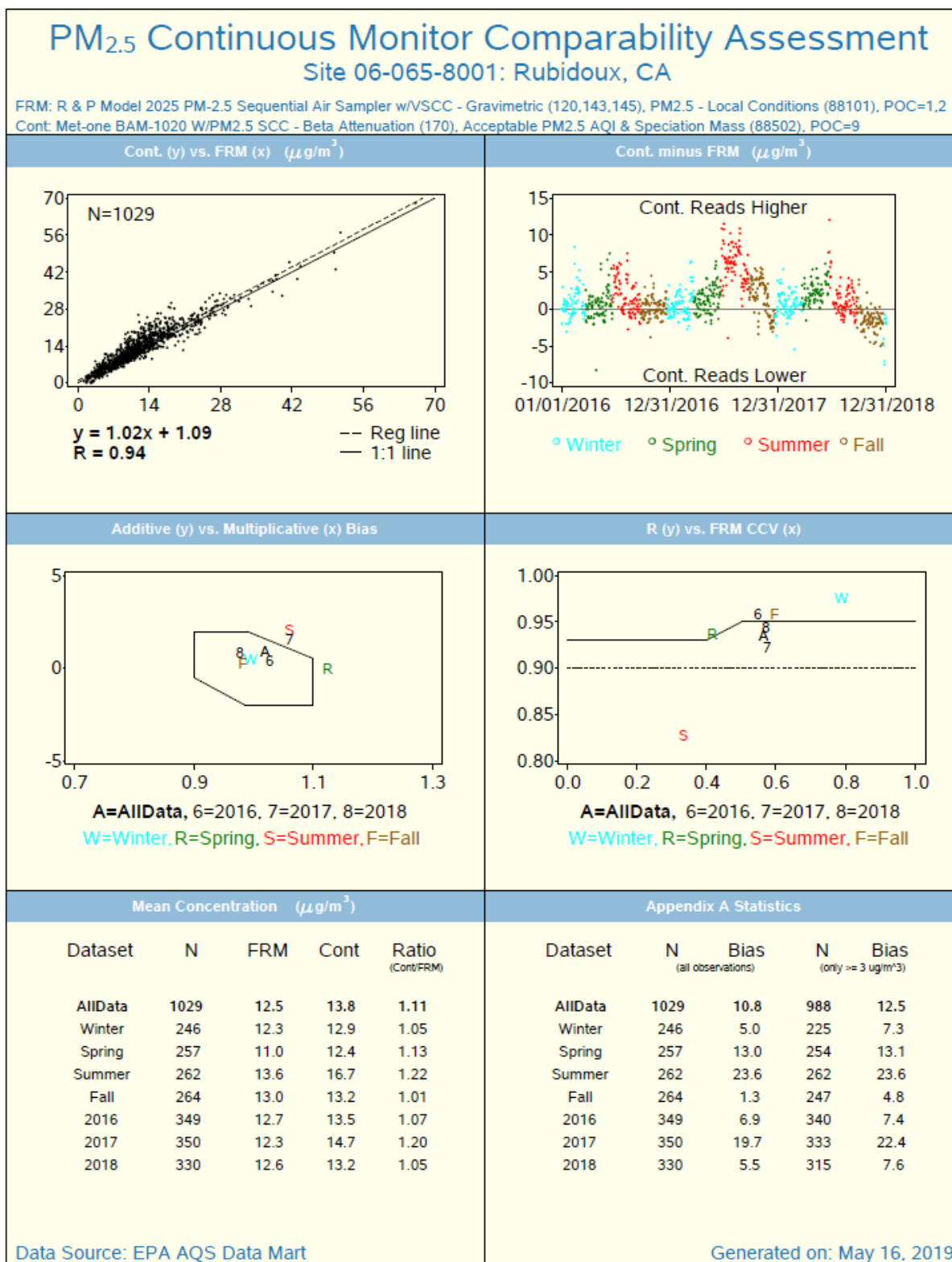
South Long Beach

(FRM POC: 1 - FEM POC: 3)



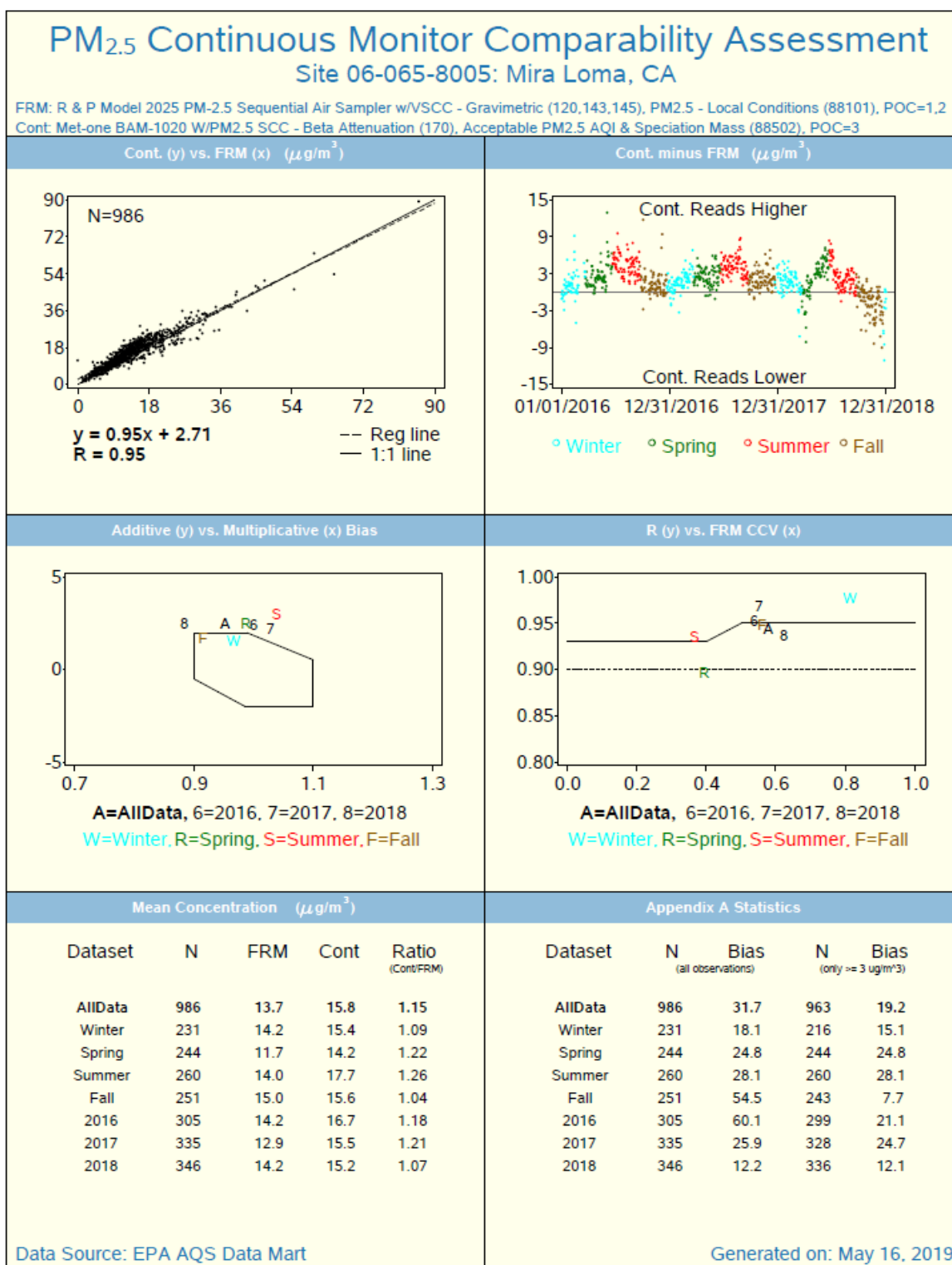
Rubidoux

(FRM POC: 1 - FEM POC: 9)



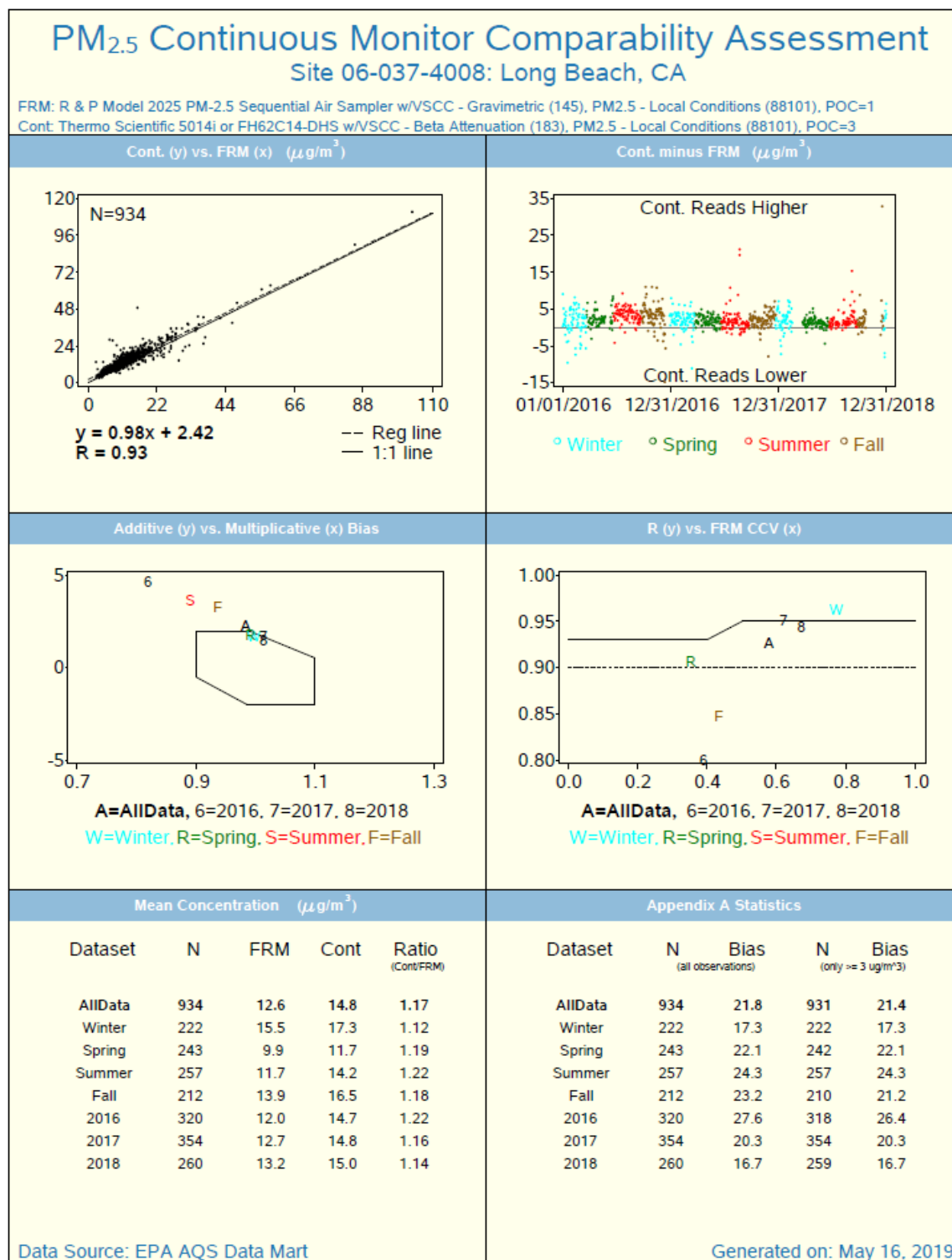
Mira Loma (Van Buren)

(FRM POC: 1 - FEM POC: 3)



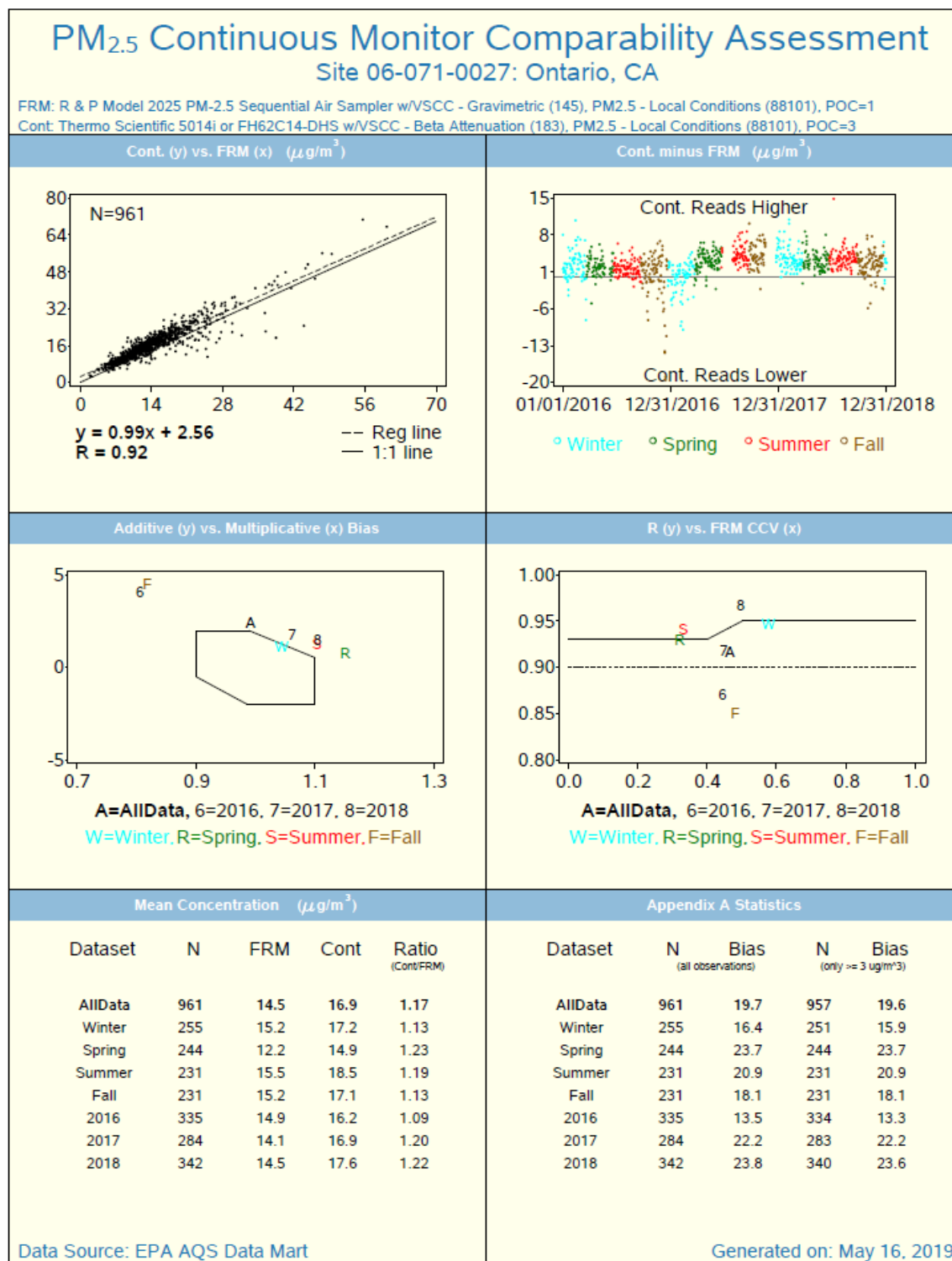
Long Beach Route 710 Near Road

(FRM POC: 1 - FEM POC: 3) *as 88101



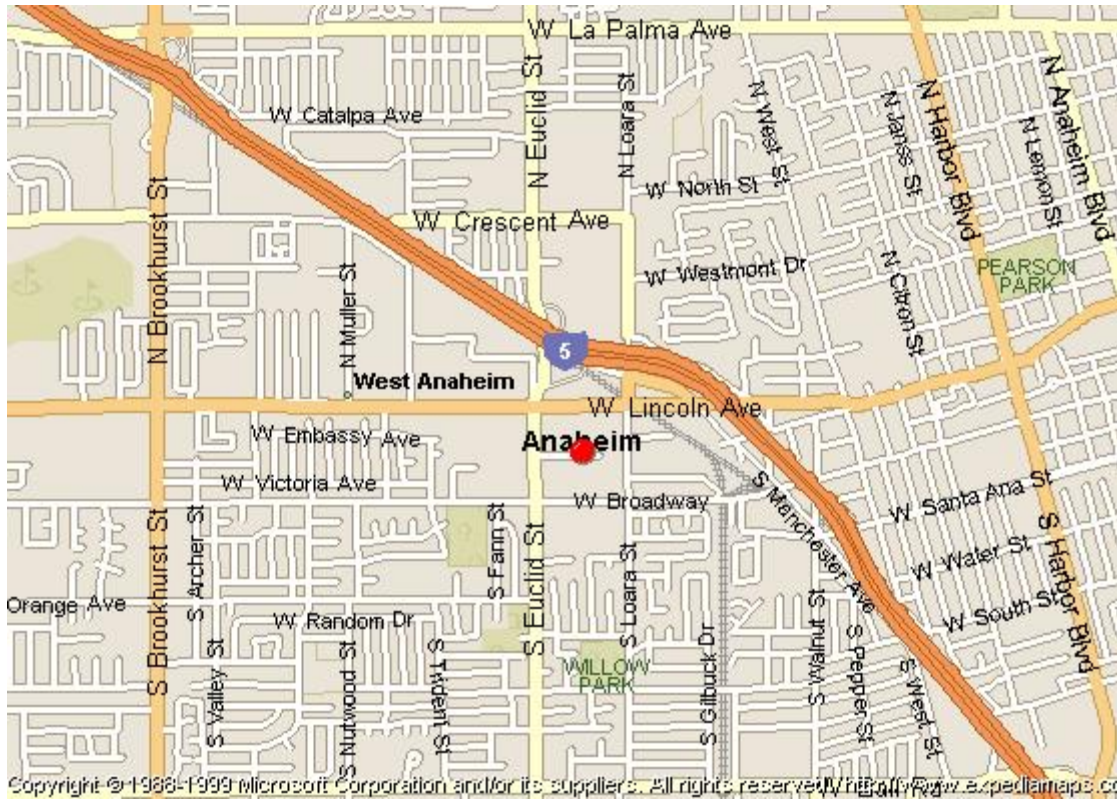
Ontario Route 60 Near Road

(FRM POC: 1 - FEM POC: 3) *as 88101



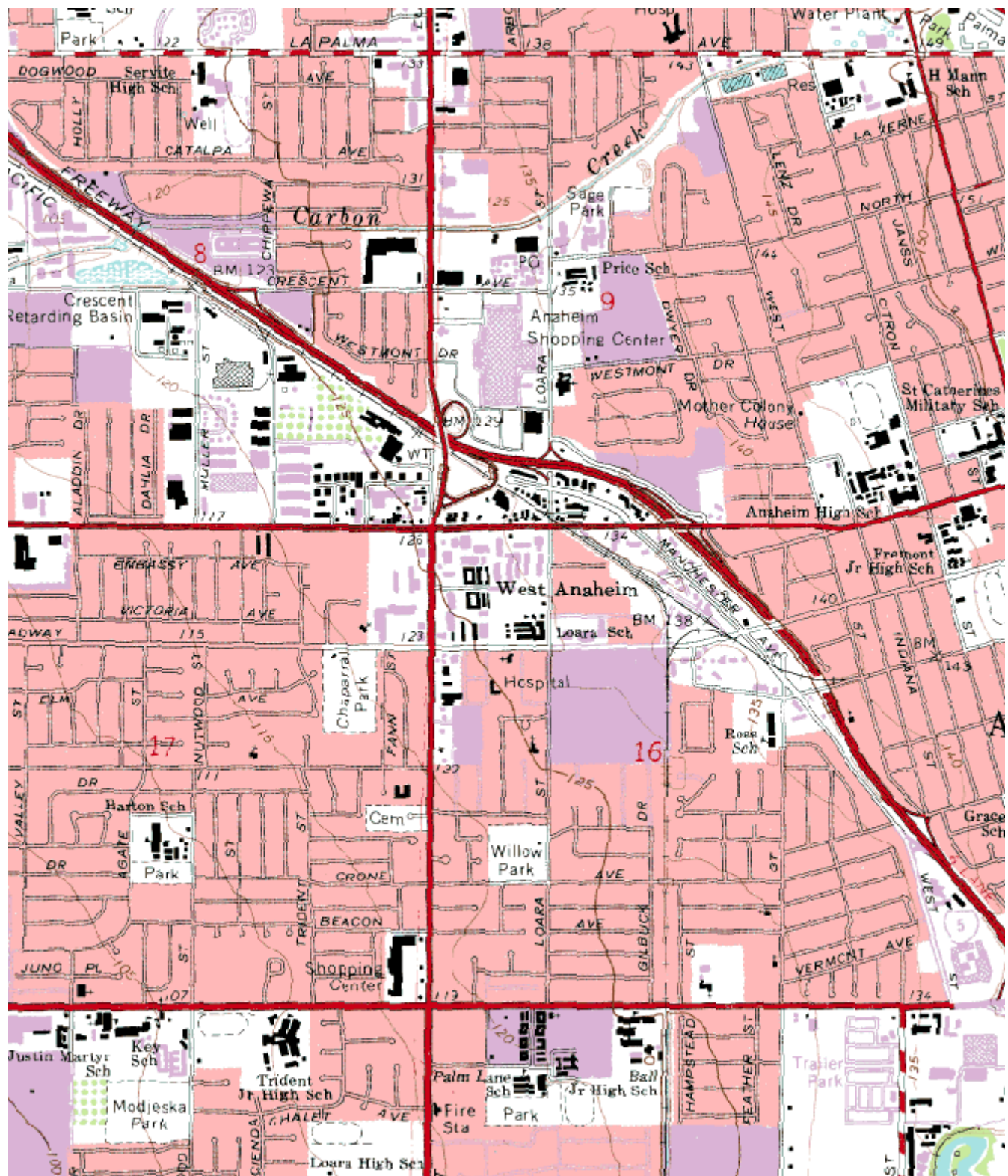
South Coast AQMD Site Survey Report for Anaheim-Loara School

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
06059007	30178	08/2001	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
1630 Pampas Ln Anaheim, CA 92802	Orange	South Coast	33° 49' 50"N	117° 56' 18"W	39



Detailed Site Information

Local site name	Anaheim-Loara School			
AQS ID	060590007			
GPS coordinates (decimal degrees)	Latitude: 33° 49' 50" Longitude: 117° 56' 18"			
Street Address	1630 Pampas Ln, Anaheim, CA 92802			
County	Orange			
Distance to roadways (meters)	7.5 – 10.5; 420 meters			
Traffic count (AADT, year)	< 500 / 2012; I-5/Euclid, 256,000, I-5, 2011			
Groundcover (e.g. asphalt, dirt, sand)	Grass			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim, MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 5	Ozone, 1	PM10, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	Primary
Parameter code	42101	42602	44201	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	Thermo 49i	GMW 1200 SSI
Method code	158	074	047	063
FRM/FEM/ARM/ other	FRM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Urban	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	08/2001	08/2001	08/2001	08/2001
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.5	4.5	4.5	3.5
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	2.8
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	8.5	15.5	10.6	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	06/21/2018	06/21/2018	06/21/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	05/18/2018, 10/26/2018

Pollutant, POC	Continuous PM10, 3	Continuous PM2.5, 3	Speciated PM2.5, 11	24 Hour PM2.5, 1
Primary / QA Collocated / Other	Other	Other	Other	Primary
Parameter code	81102	88101	See Table 26	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS

Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Met One BAM 1020	Met One BAM 1020	Met One SASS	Partisol 2025i – ID#1330
Method code	122	170	See Table 26	145
FRM/FEM/ARM/ other	FEM	FEM	Other	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	South Coast AQMD	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	03/04/2010	08/2001	08/2001	08/2001
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:6	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	No CFR mandated sampling schedule.	1:3
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.8	4.8	2.9	2.9
Distance from supporting structure (meters)	2.2	2.2	2.2	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between colocated monitors (meters)	2.8	3.9	N/A	3.9
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A

Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	No, unless manual sampler has missing data.	N/A	Yes
Frequency of flow rate verification for manual PM samplers	N/A	N/A	Monthly	Monthly
Frequency of flow rate verification for automated PM analyzers	Monthly	Monthly	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	04/10/2018, 09/19/2018	03/14/2018, 09/19/2018	06/14/2018	05/18/2018

Pollutant, POC	24 Hour PM2.5, 2	WS & D, 1/1	RH/T, 1/1	BP, 1
Primary / QA Collocated / Other	QA Collocated	N/A	N/A	N/A
Parameter code	See Table 26	61101/61102	62201/62101	64101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Meteorological	Meteorological	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Andersen RAAS PM2.5	RM Young 05305	Rotronic HC2-S3	Met One 091
Method code	120	065/065	061/061	015
FRM/FEM/ARM/ other	FRM	N/A	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	05/01/2017	08/2001	08/2001	08/2001

Current sampling frequency (e.g. 1:3, continuous)	1:1	Continuous	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	1:3	1:1	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	2.9	7.2	6.2	2.5
Distance from supporting structure (meters)	2.0	4.7	3.7	0.25
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	3.9	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	Yes	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	Monthly	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A

Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/18/2018	N/A	N/A	N/A

**Anaheim-Loara School
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Anaheim-Loara School
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.

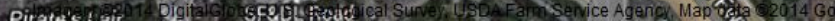


Looking at the probe from the South.

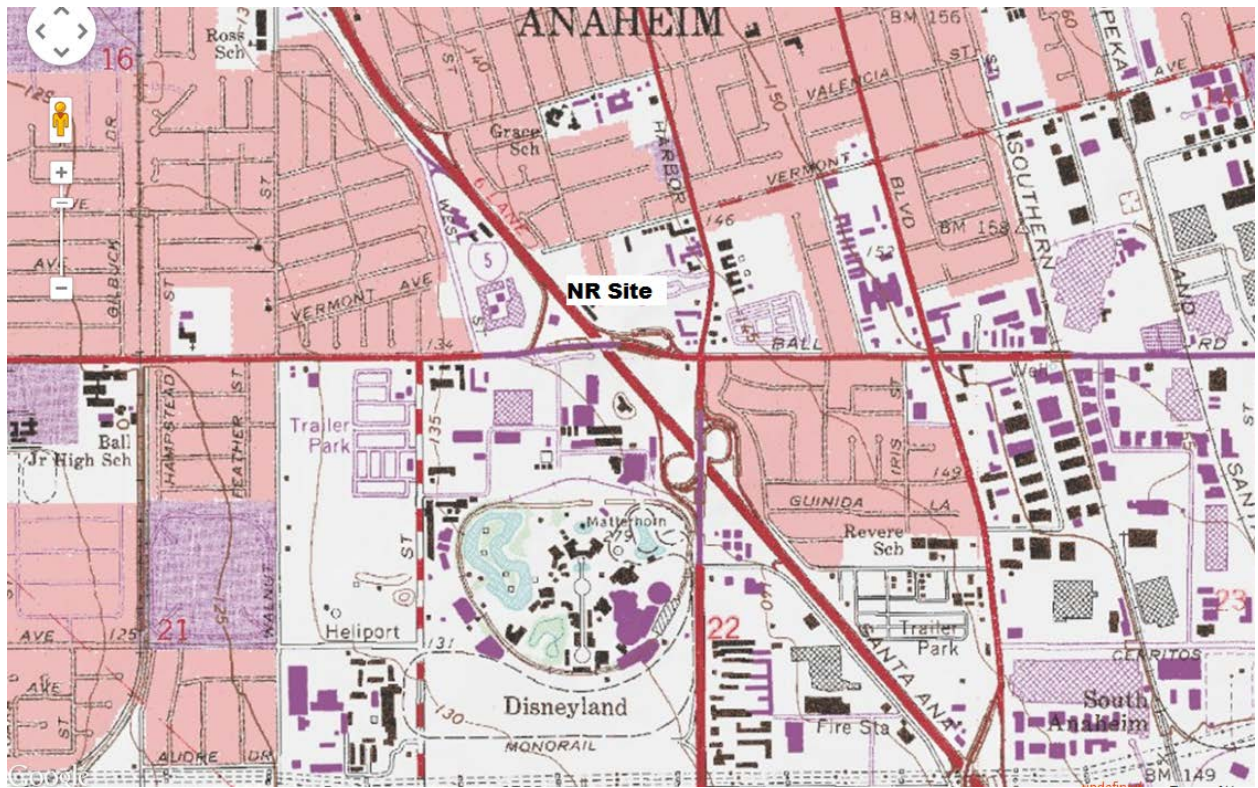


Looking at the probe from the West.

Last updated: May, 2019



AIRS Number	ARB Number	Site Start Date	Reporting Agency and Agency Code
060590008	30031	01/14	South Coast AQMD (061)



Detailed Site Information

Local site name	Anaheim Near Road			
AQS ID	060590008			
GPS coordinates (decimal degrees)	Latitude: 33.819305 Longitude: -117.918759			
Street Address	812 W. Vermont Street, Anaheim, CA 92802			
County	Orange			
Distance to roadways (meters)	9.0 meters			
Traffic count (AADT, year)	695776 (FEAADT)			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim, MSA			
Pollutant, POC	Nitrogen Dioxide, 1	Carbon Monoxide, 1	WS & D, 1/1	RH/T, 1/1
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Parameter code	42602	42101	61101/61102	62201/62101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Meteorological	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	Near Road	Near Road	Near Road	Near Road
Instrument manufacturer and model	Thermo 42i	Thermo 48i-TLE	RM Young 05305	Rotronic HC2-S3
Method code	074	554	065/065	063/063
FRM/FEM/ARM/ other	FRM	FRM	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Micro	Micro	Micro	Micro
Monitoring start date (MM/DD/YYYY)	01/2014	12/2014	12/2014	12/2014
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.5	4.5	10	3.5
Distance from supporting structure (meters)	2.0	2.0	10	1.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A

Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between colocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	N/A
Residence time for reactive gases (seconds)	17.7	21.4	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	06/19/2018	06/19/2018	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

**Anaheim-Near Road
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Anaheim-Near Road
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



Looking at the probe from the South.

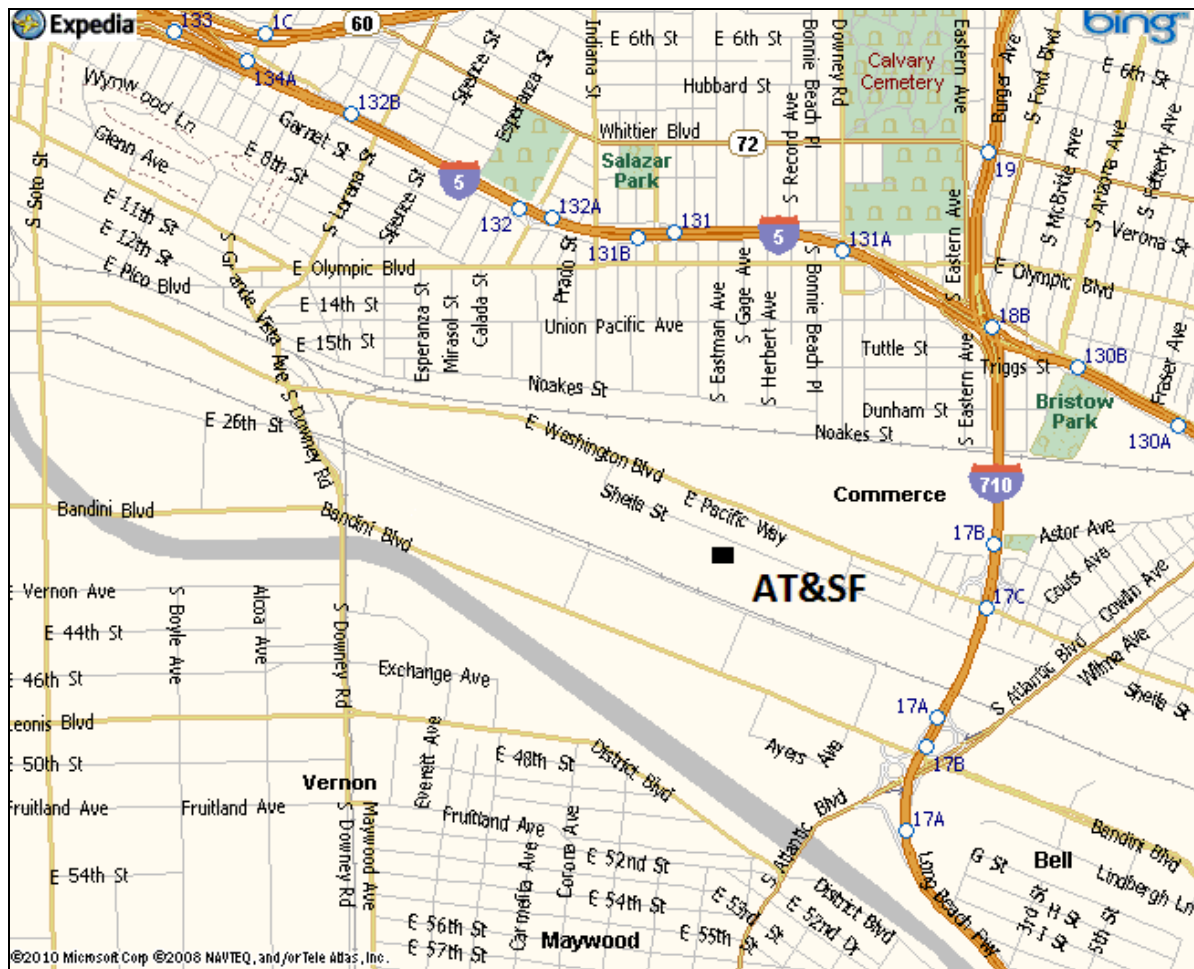
Unavailable due to freeway

Looking at the probe from the West.

Quality Assurance

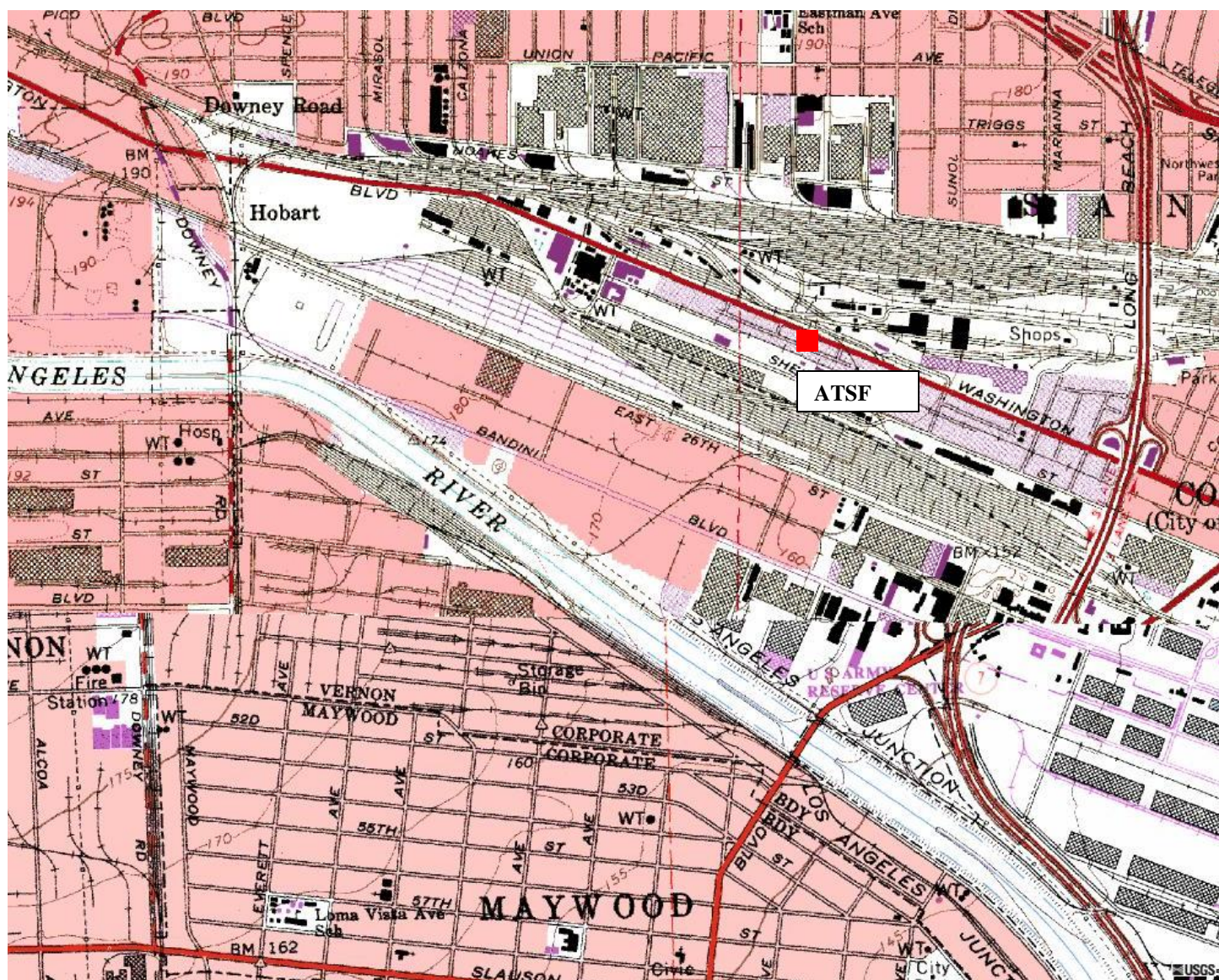
Site Survey Report for AT&SF (Exide)

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060371406	70042	01/01/1999	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
Railroad Yard (Washington Blvd). City of Commerce	Los Angeles	South Coast	34° 00' 30" N	118° 11' 26" W	53 m



Detailed Site Information

Local site name	AT&SF			
AQS ID	060371406			
GPS coordinates (decimal degrees)	Latitude: 34° 00' 30" Longitude: -118° 11' 26"			
Street Address	Railroad yard off Washington Blvd, Commerce, CA			
County	Los Angeles			
Distance to roadways (meters)	257 (Washington Blvd.)			
Traffic count (AADT, year)	38,513 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Dirt/Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim, MSA			
Pollutant, POC	Lead, 1	Lead, 2		
Primary / QA Collocated / Other	Primary	Other (Composite)		
Parameter code	14129	14129		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Source Oriented	Source Oriented		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	N/A	N/A		
Instrument manufacturer and model	Hi Q TSP	Hi Q TSP		
Method code	110	110		
FRM/FEM/ARM/ other	FRM	FRM		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Micro	Micro		
Monitoring start date (MM/DD/YYYY)	01/01/1999	01/01/1999		
Current sampling frequency (e.g.1:3, continuous)	1:3	1:3		
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	1:6 (offset by 3)		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	3.5	3.5		
Distance from supporting structure (meters)	2.0	2.0		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		

Distance from trees (meters)	N/A	N/A		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	N/A		
Unrestricted airflow (degrees)	360°	360°		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/16/2018, 11/20/2018	05/16/2018, 11/20/2018		

**Exide - ATSF
Site Photos (Cont.)**



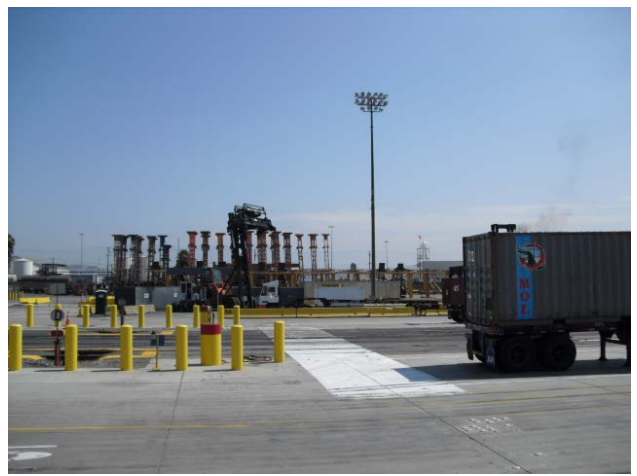
Looking at the probe to the West.



Looking from the probe to the East.



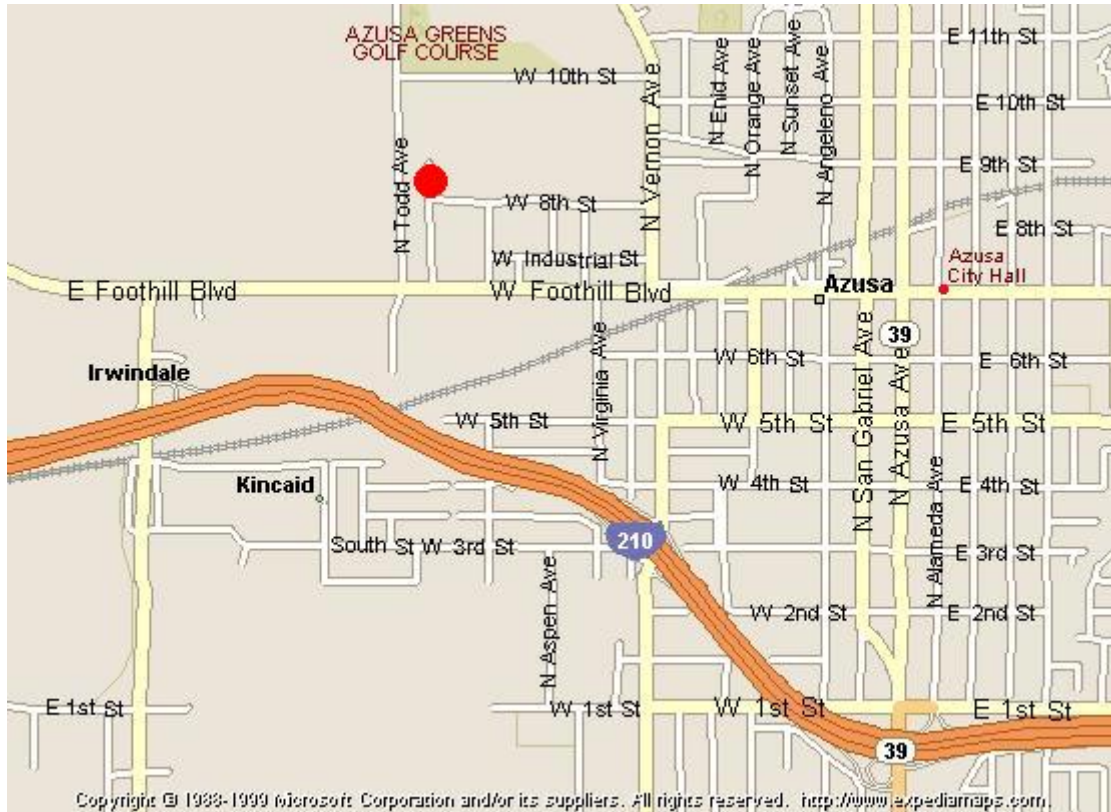
Looking from the probe to the South.



Looking from the probe to the North.

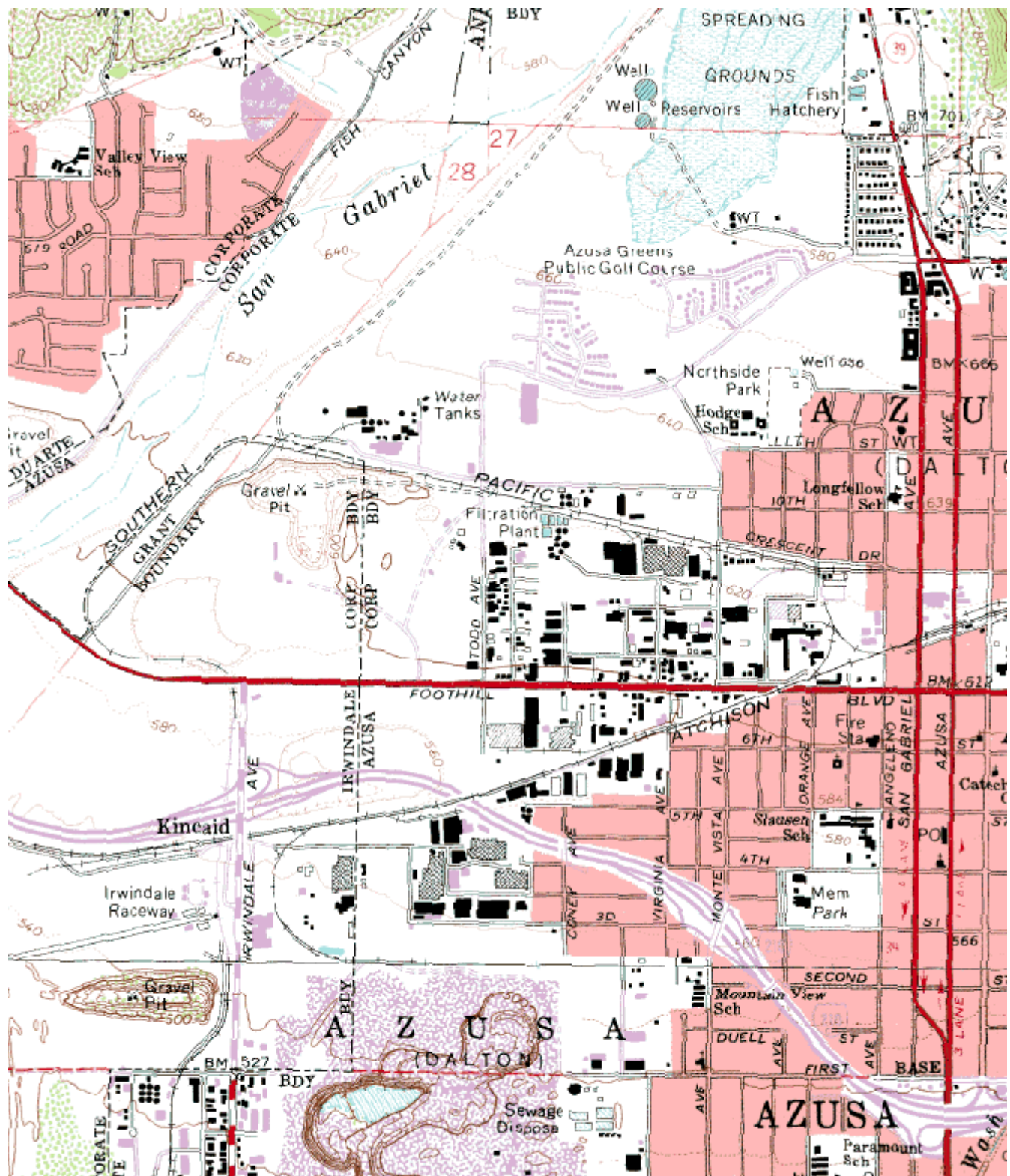
South Coast AQMD Site Survey Report for Azusa

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060370002	70060	01/1957	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
803 N. Loren Ave Azusa, CA 91702	Los Angeles	South Coast	34° 08' 11"N	117° 55' 26"W	187



Detailed Site Information

Local site name	Azusa			
AQS ID	060370002			
GPS coordinates (decimal degrees)	Latitude: 34° 08' 11" Longitude: 117° 55' 26"			
Street Address	803 N Loren Ave, Azusa, CA 91702			
County	Los Angeles			
Distance to roadways (meters)	14.5 – 18.5; 695			
Traffic count (AADT, year)	< 1000 / 2012; Route 210/Irwindale, 266,000, 2011			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim, MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 2	Ozone, 1	PM10, 2
Primary / QA Collocated / Other	N/A	N/A	N/A	Primary
Parameter code	42101	42602	44201	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Highest Concentration	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	API/Teledyne 400E	Tisch TE-6001 SSI
Method code	158	074	87	141
FRM/FEM/ARM/ other	FRM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Urban	Urban	Neighborhood
Monitoring start date (MM/DD/YYYY)	01/1957	01/1957	01/1957	01/01/1985
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	5.5	5.5	5.5	5.1
Distance from supporting structure (meters)	2	2	2	2
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	6.5	14.1	7.8	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	03/14/2018	03/14/2018	03/14/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	05/04/2018, 10/16/2018

Pollutant, POC	24 Hour PM2.5, 1	24 Hour PM2.5, 2		
Primary / QA Collocated / Other	Primary	QA Collocated		
Parameter code	See Table 26	See Table 26		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Population Exposure	Population Exposure		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	N/A	N/A		
Instrument manufacturer and model	Partisol 2000i	Partisol 2000i		
Method code	143	143		
FRM/FEM/ARM/ other	FRM	FRM		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood		
Monitoring start date (MM/DD/YYYY)	01/04/1999	1/5/2018		
Current sampling frequency (e.g. 1:3, continuous)	1:3	1:3		
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	1:6		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	5.5	5.5		
Distance from supporting structure (meters)	2.0	2.0		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	N/A	N/A		
Distance to furnace or incinerator flue (meters)	26	26		
Distance between collocated monitors (meters)	N/A	N/A		
Unrestricted airflow (degrees)	360°	360°		

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	Yes	N/A		
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/04/2018, 10/16/2018	05/04/2018, 10/16/2018		

Pollutant, POC	VOCs, N/A	WS & D, 1/1	RH/T, 1/1	BP, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Parameter code	N/A	61101/61102	62201/62101	64101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Meteorological	Meteorological	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	RM Env. 910PC	RM Young 05305	Rotronic HC2-S3	Met One 091
Method code	N/A	065/065	063/061	015
FRM/FEM/ARM/ other	Other	N/A	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab)	ARB Toxics	N/A	N/A	N/A

Reporting Agency	ARB	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood/ Urban	Neighborhood/ Urban	Neighborhood/ Urban
Monitoring start date (MM/DD/YYYY)	01/1989	01/1957	01/1957	01/1957
Current sampling frequency (e.g. 1:3, continuous)	1:12	Continuous	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	No CFR mandated sampling schedule.	1:1	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	5.5	10	9.5	1.5
Distance from supporting structure (meters)	2.0	10	9.5	1.5
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	NA	N/A	N/A	N/A
Distance from trees (meters)	23	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A

Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

**Azusa
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Azusa
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



Looking at the probe from the South.



Looking at the probe from the West.

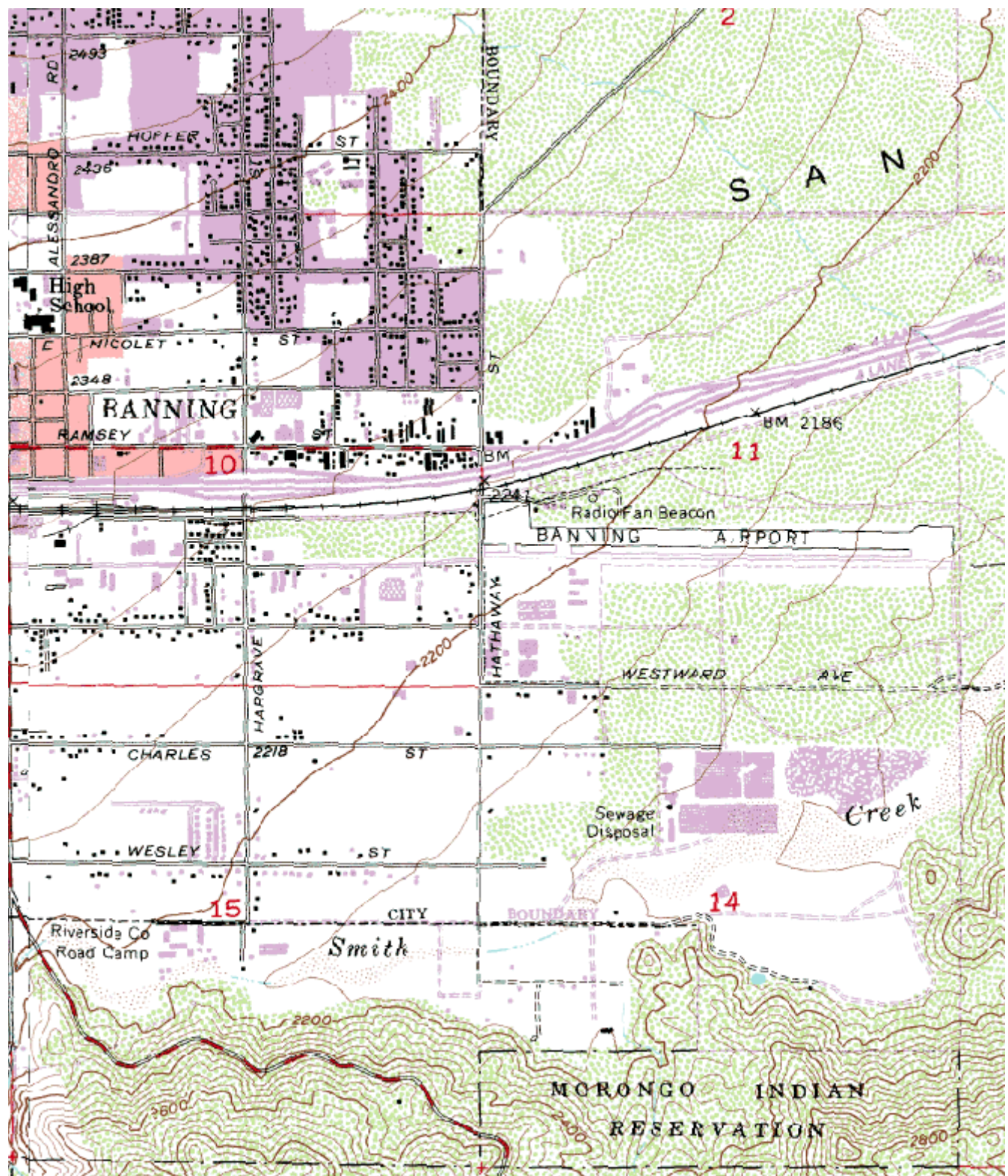
South Coast AQMD Site Survey Report for Banning-Airport

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060650012	33164	04/1997	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
200 S. Hathaway St Banning, CA 92220	Riverside	South Coast	33° 55' 14"N	116° 51' 30"W	671



Detailed Site Information

Local site name	Banning-Airport			
AQS ID	060650012			
GPS coordinates (decimal degrees)	Latitude: 33° 55' 14" Longitude: 116° 51' 30"			
Street Address	200 S Hathaway St, Banning, CA 92220			
County	Riverside			
Distance to roadways (meters)	80; 366			
Traffic count (AADT, year)	< 2,000 / 2012; I-10/Hargrave, 116,000, 2011			
Groundcover (e.g. asphalt, dirt, sand)	Gravel			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Nitrogen Dioxide, 1	Ozone, 1	PM10, 1	Continuous PM2.5, 3
Primary / QA Collocated / Other	N/A	N/A	Primary	Other
Parameter code	42602	44201	See Table 26	88502
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Thermo 42i	Thermo 49i	Sierra Andersen 1200 SSI	Met One BAM 1020
Method code	074	047	063, 102	731
FRM/FEM/ARM/ other	FRM	FEM	FRM	Non-FEM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	South Coast AQMD	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	04/01/1997	04/01/1997	04/01/1997	02/10/2006
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:6	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	1:6	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.05	4.05	3.5	4.75
Distance from supporting structure (meters)	2	2	2	2
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	N/A
Residence time for reactive gases (seconds)	8.3	6.8	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	Monthly	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Monthly
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	10/02/2018	10/02/2018	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	04/05/2018, 09/28/2018	03/02/2018, 09/05/2018

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Vaisala PTB110	
Method code	065/065	061/061	015	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	04/1997	04/1997	04/1997	
Current sampling frequency (e.g.1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	9.5	3.5	
Distance from supporting structure (meters)	10	9.5	1.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**Banning-Airport
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Banning-Airport
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



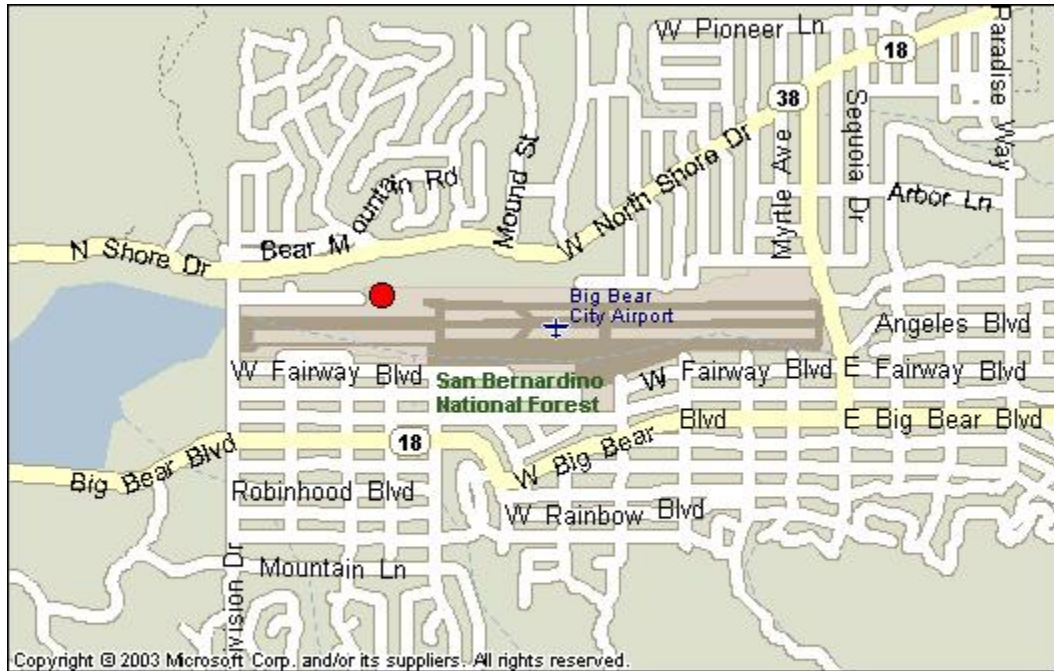
Looking at the probe from the South.



Looking at the probe from the West.

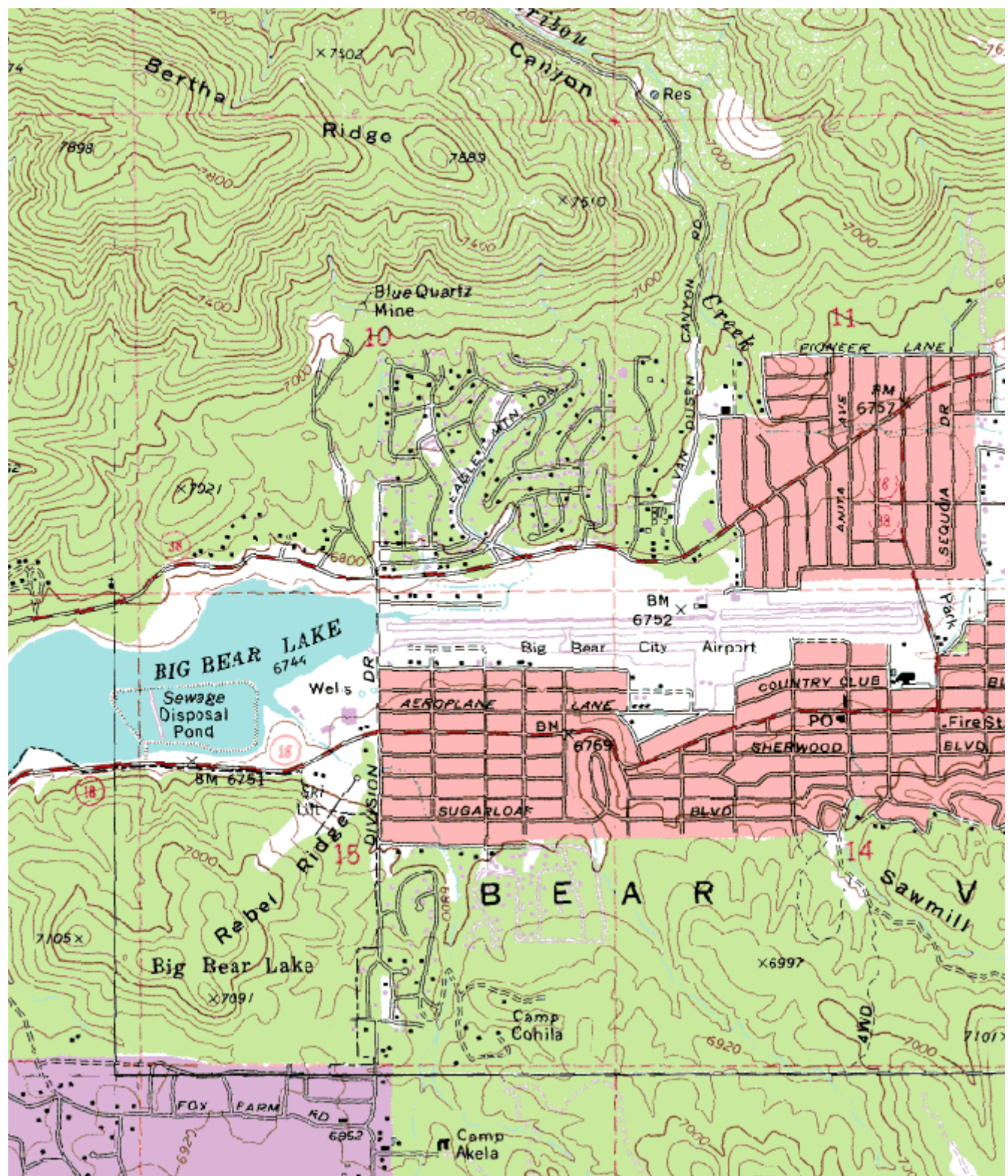
South Coast AQMD Site Survey Report for Big Bear

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060718001	36001	02/1999	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
501 W. Valley Blvd Big Bear City, CA 92314	San Bernardino	South Coast	34° 15' 52"N	116° 51' 41"W	2059



Detailed Site Information

Local site name	Big Bear			
AQS ID	060718001			
GPS coordinates (decimal degrees)	Latitude: 34° 15' 52" Longitude: 116° 51' 41"			
Street Address	501 W. Valley Blvd, Big Bear, CA 92314			
County	San Bernardino			
Distance to roadways (meters)	114			
Traffic count (AADT, year)	2,876 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Grassland			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	24 Hour PM2.5, 1			
Primary / QA Collocated / Other	Primary			
Parameter code	See Table 26			
Basic monitoring objective(s)	NAAQS			
Site type(s)	Population Exposure			
Monitor (type)	SLAMS			
Network Affiliation	N/A			
Instrument manufacturer and model	Partisol 2000i			
Method code	143			
FRM/FEM/ARM/ other	FRM			
Collecting Agency	South Coast AQMD			
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD			
Reporting Agency	South Coast AQMD			
Spatial scale (e.g. micro, neighborhood)	Neighborhood			
Monitoring start date (MM/DD/YYYY)	02/08/1999			
Current sampling frequency (e.g.1:3, continuous)	1:6			
Calculated sampling frequency (e.g. 1:3/1:1)	1:6 Approved by regional administrator at inception.			
Sampling season (MM/DD-MM/DD)	01/01-12/31			
Probe height (meters)	3.5			
Distance from supporting structure (meters)	2.0			
Distance from obstructions on roof (meters)	N/A			
Distance from obstructions not on roof (meters)	N/A			

Distance from trees (meters)	36			
Distance to furnace or incinerator flue (meters)	N/A			
Distance between collocated monitors (meters)	N/A			
Unrestricted airflow (degrees)	360°			
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A			
Residence time for reactive gases (seconds)	N/A			
Will there be changes within the next 18 months? (Y/N)	No			
Is it suitable for comparison against the annual PM2.5? (Y/N)	Yes			
Frequency of flow rate verification for manual PM samplers	Monthly			
Frequency of flow rate verification for automated PM analyzers	N/A			
Frequency of one-point QC check for gaseous instruments	N/A			
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A			
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	04/17/2018, 10/12/2018			

Big Bear Site Photos



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Big Bear
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



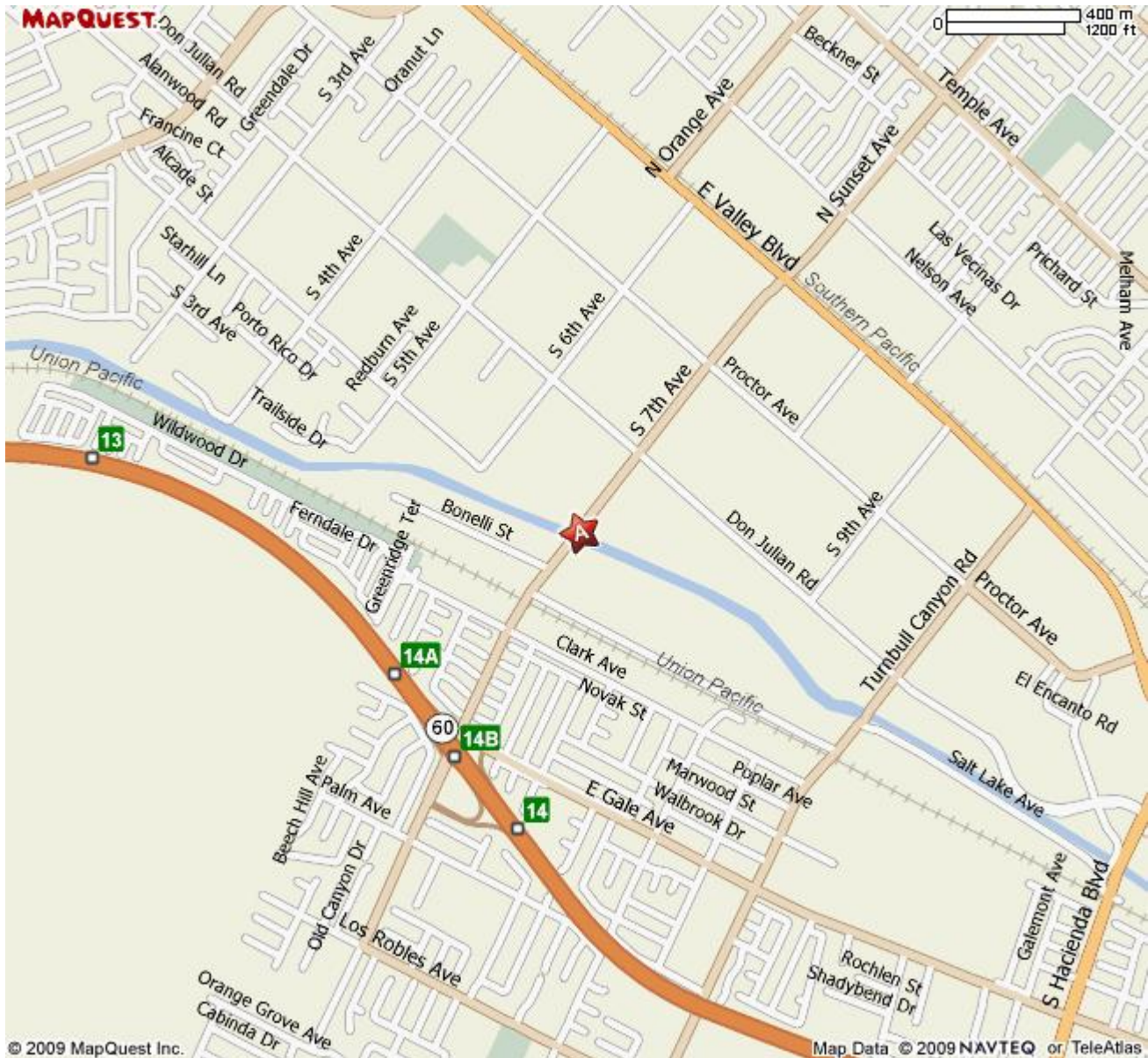
Looking at the probe from the South.



Looking at the probe from the West.

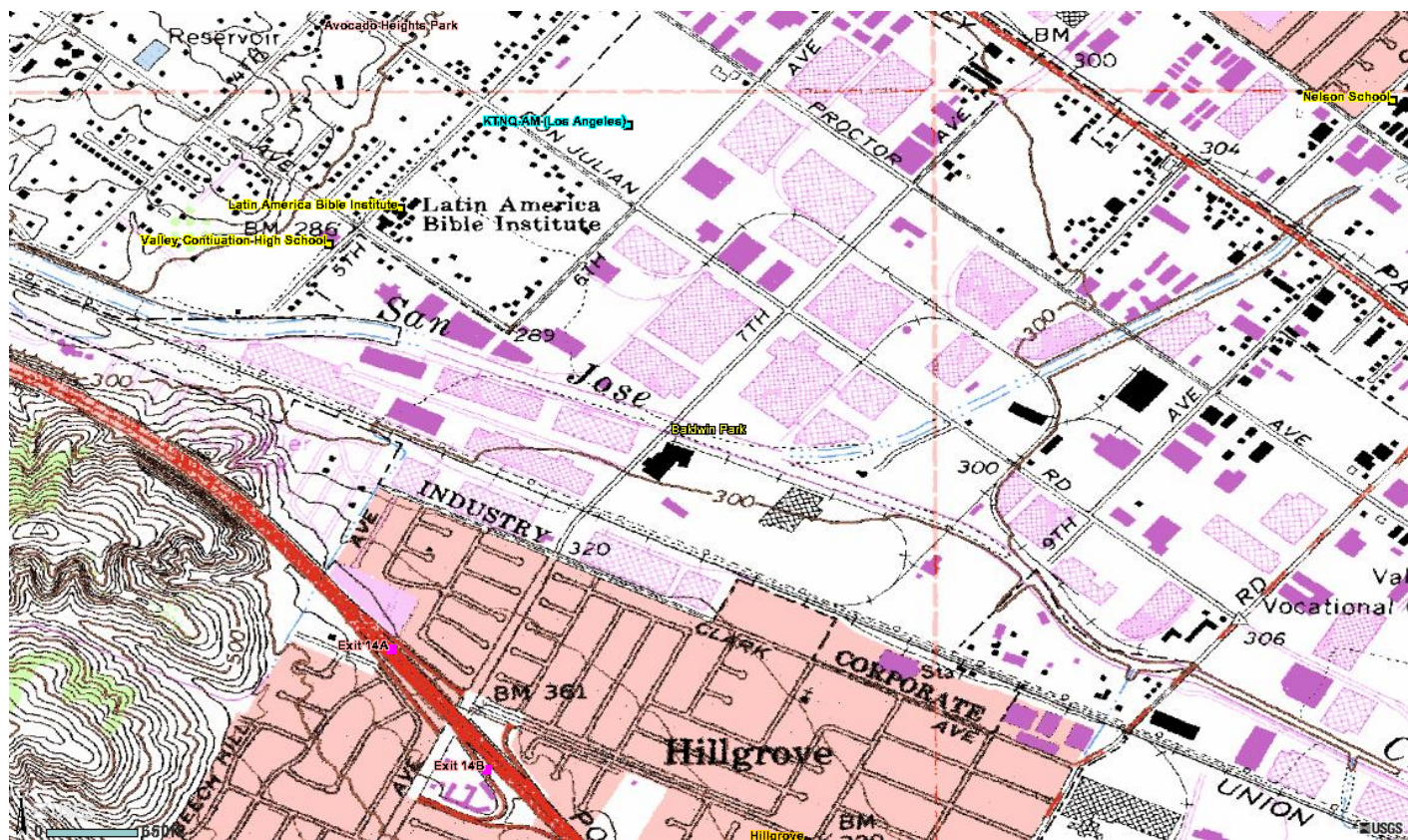
Quality Assurance Site Survey Report for Closet World (Quemetco)

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060371404	70043	10/03/2008	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
500 S. 7th Ave. City of Industry, CA 91746	Los Angeles	South Coast	34° 01' 34"N	117° 58' 54"W	89 m



Detailed Site Information

Local site name	Closet World (Quemetco)			
AQS ID	060371404			
GPS coordinates (decimal degrees)	Latitude: 34° 01' 34" Longitude: 117° 58' 54"			
Street Address	720 S 7th Ave. City of Industry, CA 91746			
County	Los Angeles			
Distance to roadways (meters)	30			
Traffic count (AADT, year)	20,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim, MSA			
Pollutant, POC	Lead, 1			
Primary / QA Collocated / Other	Primary			
Parameter code	14129			
Basic monitoring objective(s)	NAAQS			
Site type(s)	Source Oriented			
Monitor (type)	SLAMS			
Network Affiliation	N/A			
Instrument manufacturer and model	Tisch +			
Method code	110			
FRM/FEM/ARM/ other	FRM			
Collecting Agency	South Coast AQMD			
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD			
Reporting Agency	South Coast AQMD			
Spatial scale (e.g. micro, neighborhood)	Micro			
Monitoring start date (MM/DD/YYYY)	10/03/2008			
Current sampling frequency (e.g.1:3, continuous)	1:6			
Calculated sampling frequency (e.g. 1:3/1:1)	1:6			
Sampling season (MM/DD-MM/DD)	01/01-12/31			
Probe height (meters)	2.6			
Distance from supporting structure (meters)	2.0			
Distance from obstructions on roof (meters)	N/A			
Distance from obstructions not on roof (meters)	N/A			

Distance from trees (meters)	N/A			
Distance to furnace or incinerator flue (meters)	N/A			
Distance between collocated monitors (meters)	N/A			
Unrestricted airflow (degrees)	360°			
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A			
Residence time for reactive gases (seconds)	N/A			
Will there be changes within the next 18 months? (Y/N)	No			
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A			
Frequency of flow rate verification for manual PM samplers	Monthly			
Frequency of flow rate verification for automated PM analyzers	N/A			
Frequency of one-point QC check for gaseous instruments	N/A			
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A			
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/17/2018, 10/25/2018			

**Quemetco – Closet World
Site Photos**



Looking North from the probe



Looking East from the probe.



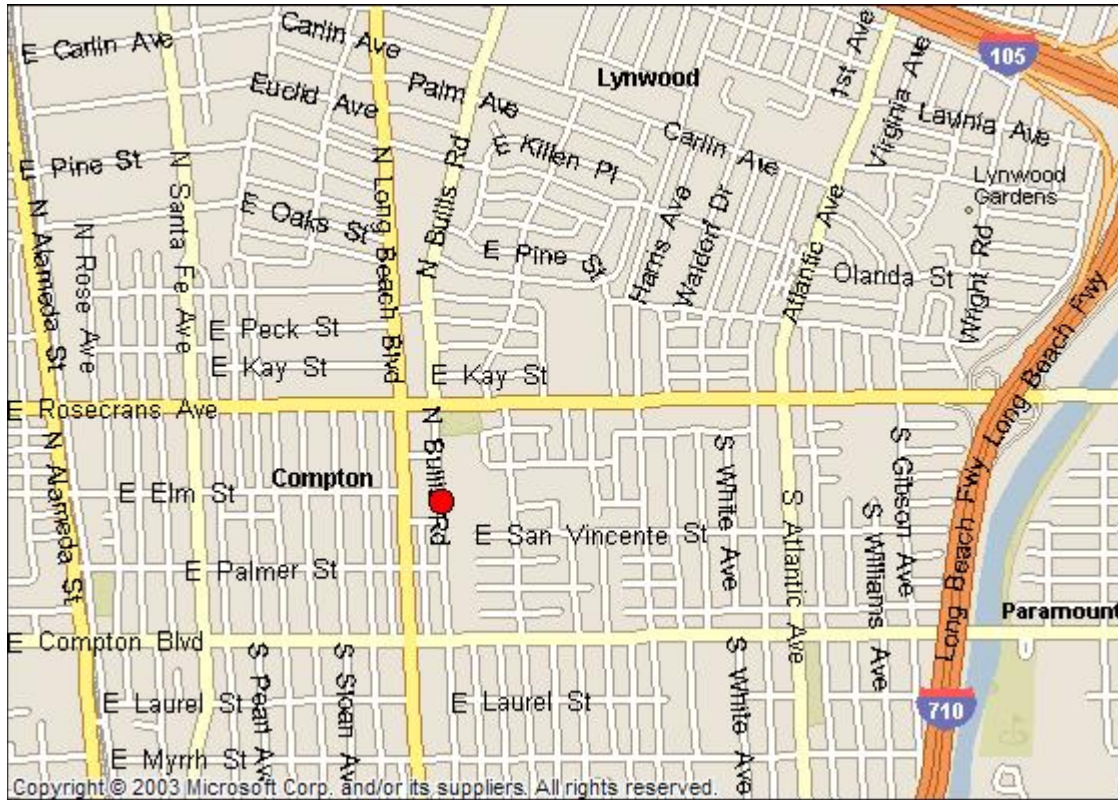
Looking South toward the probe.



Looking West from the probe

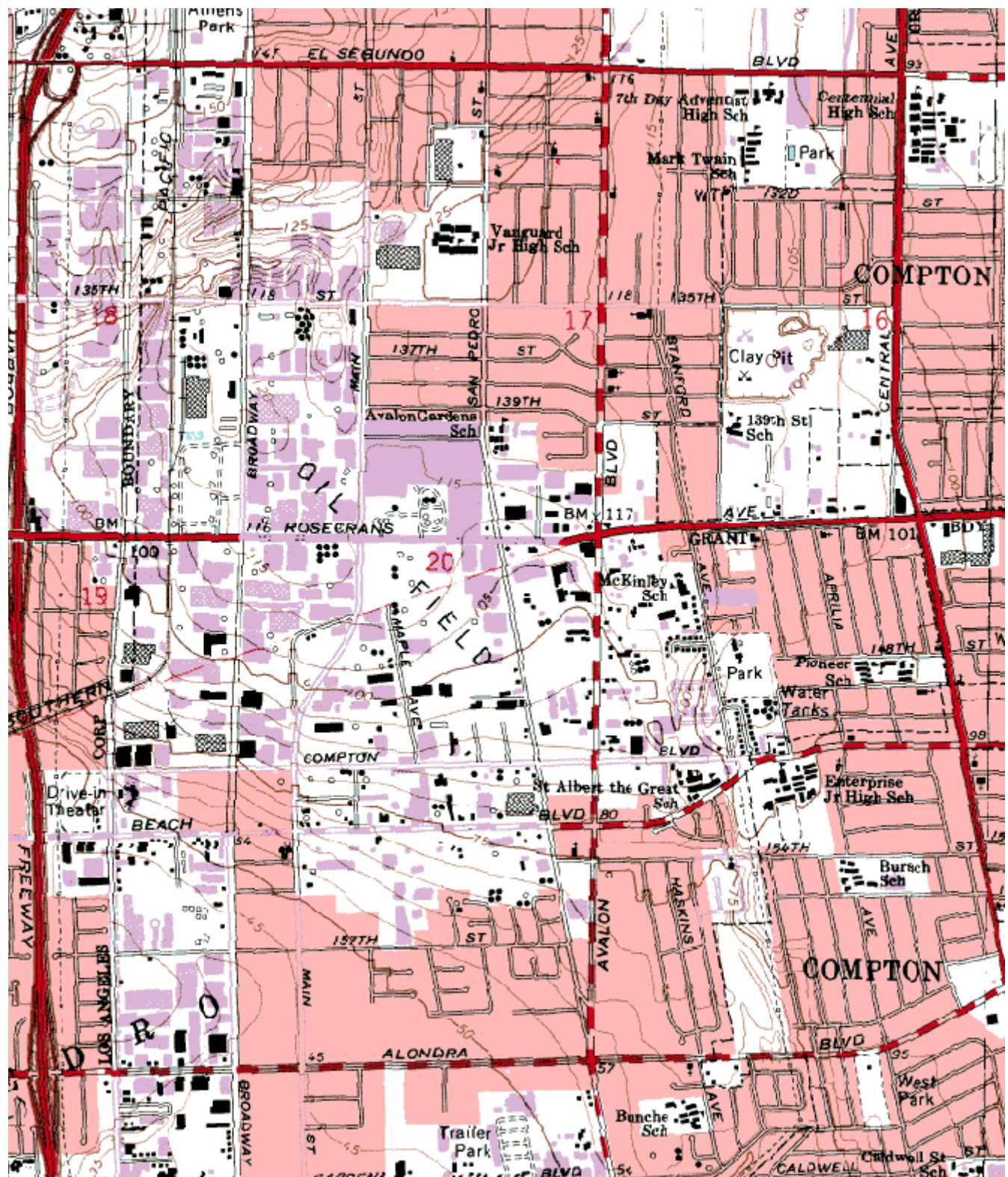
South Coast AQMD Site Survey Report for Compton

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060371302	70112	01/2004	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
700 North Bullis Rd Compton, CA 90221	Los Angeles	South Coast	33° 54' 05"N	118° 12' 18"W	22



Detailed Site Information

Local site name	Compton			
AQS ID	060371302			
GPS coordinates (decimal degrees)	Latitude: 33° 54' 05" Longitude: 118° 12' 18"			
Street Address	700 N Bullis Rd, Compton, CA 90221			
County	Los Angeles			
Distance to roadways (meters)	13 – 17; 1680			
Traffic count (AADT, year)	1,000 / 2012; 710/105, 225,000, 2011			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim, MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone , 1	Lead, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	Primary
Parameter code	42101	42602	44201	14129
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Highest Concentration	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	Thermo 49i	TSP, A Sampler, Hi Q
Method code	158	074	047	110
FRM/FEM/ARM/ other	FRM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Middle	Middle	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	01/2004	01/2004	01/2004	01/2004
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.0	4.0	4.0	3.0
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	16	16	16	13
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	6.8	12.5	9.0	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	06/28/2018	06/28/2018	06/28/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	05/18/2018, 10/31/2018

Pollutant, POC	24 Hour PM2.5, 1	Lead, 2		
Primary / QA Collocated / Other	Primary	QA Collocated		
Parameter code	See Table 26	14129		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Population Exposure	Population Exposure		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	N/A	N/A		
Instrument manufacturer and model	Partisol 2025i	TSP, B Sampler, Hi Q		
Method code	145	110		
FRM/FEM/ARM/ other	FRM	FRM		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood		
Monitoring start date (MM/DD/YYYY)	01/2004	05/2015		
Current sampling frequency (e.g. 1:3, continuous)	Daily	1:6		
Calculated sampling frequency (e.g. 1:3/1:1)	Daily	1:6		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	2.5	3.0		
Distance from supporting structure (meters)	2.0	2.0		
Distance from obstructions on roof (meters)	NA	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	17	13		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	2.0		
Unrestricted airflow (degrees)	360°	360°		

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	Yes	N/A		
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/18/2018, 10/31/2018	05/18/2018, 10/31/2018		

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Met One 091	
Method code	065/065	061/061	015	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	

Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood/ Middle	Neighborhood/ Middle	Neighborhood/ Middle	
Monitoring start date (MM/DD/YYYY)	01/2004	01/2004	01/2004	
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	5.5	3.5	
Distance from supporting structure (meters)	10	3.0	1.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	16	16	16	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	

Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**Compton
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Compton
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



Looking at the probe from the South.



Looking at the probe from the West.

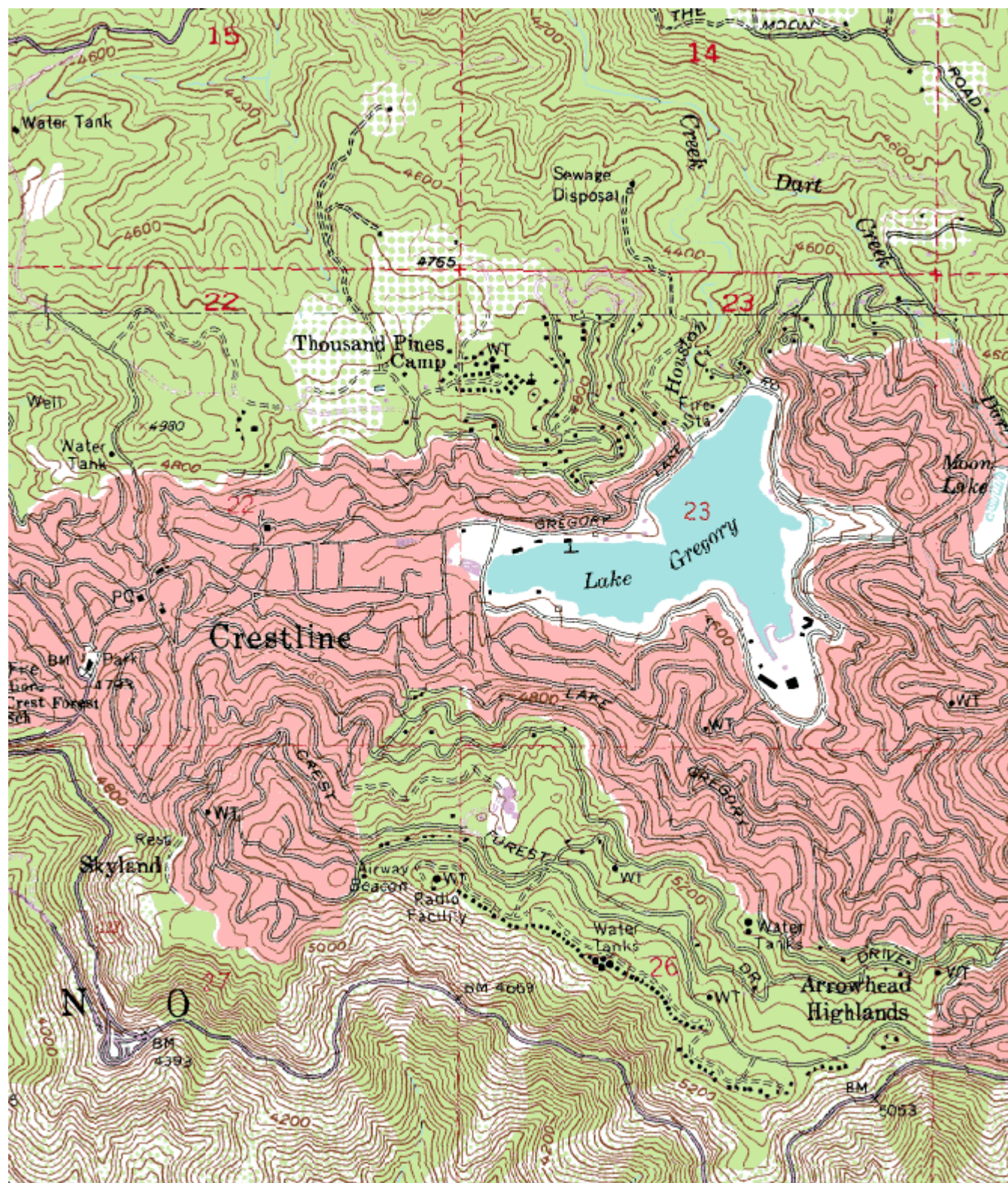
South Coast AQMD
Site Survey Report for Central San Bernardino Mountains

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code			
060710005	36181	10/1973	South Coast AQMD (061)			

Site Address	County	Air Basin	Latitude	Longitude	Elevation
24171 Lake Dr Crestline, CA 92325	San Bernardino	South Coast	34° 14' 35"N	117° 16' 20"W	1387



Detailed Site Information

Local site name	Central San Bernardino Mountains			
AQS ID	060710005			
GPS coordinates (decimal degrees)	Latitude: 34° 14' 35" Longitude: 117° 16' 20"			
Street Address	24171 Lake Dr, Crestline, CA 92325			
County	San Bernardino			
Distance to roadways (meters)	55			
Traffic count (AADT, year)	< 8,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Grass/Weeds			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Ozone, 1	PM10, 1	Continuous PM2.5, 3	
Primary / QA Collocated / Other	N/A	Primary	Other	
Parameter code	44201	See Table 26	88502	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Highest Concentration	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Thermo 49i	Sierra Andersen 1200 SSI	Met One BAM 1020	
Method code	047	063, 102	731	
FRM/FEM/ARM/ other	FEM	FRM	Non-FEM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	10/01/1973	01/1985	07/24/2009	
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:6	1:1	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:6	N/A	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	3.0	4.0	4.5	
Distance from supporting structure (meters)	2.0	2.0	2.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	10	10	10	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	225°	225°	225°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A	
Residence time for reactive gases (seconds)	12.4	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	Monthly	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly	
Frequency of one-point QC check for gaseous instruments	Nightly	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	07/24/2018	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	04/12/2018, 10/04/2018	03/06/2018, 09/13/2018	

Pollutant, POC	WS & D, 1/1	RH/T, 1/1		
Primary / QA Collocated / Other	N/A	N/A		
Parameter code	61101/61102	62201/62101		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Meteorological	Meteorological		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	N/A	N/A		
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3		
Method code	065/065	061/061		
FRM/FEM/ARM/ other	N/A	N/A		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood		
Monitoring start date (MM/DD/YYYY)	10/1973	10/1973		
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous		
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	4.9	1.0		
Distance from supporting structure (meters)	N/A	N/A		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	15	10		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	N/A		

Unrestricted airflow (degrees)	225°	225°		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A		

**Central San Bernardino Mountains
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Central San Bernardino Mountains
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.

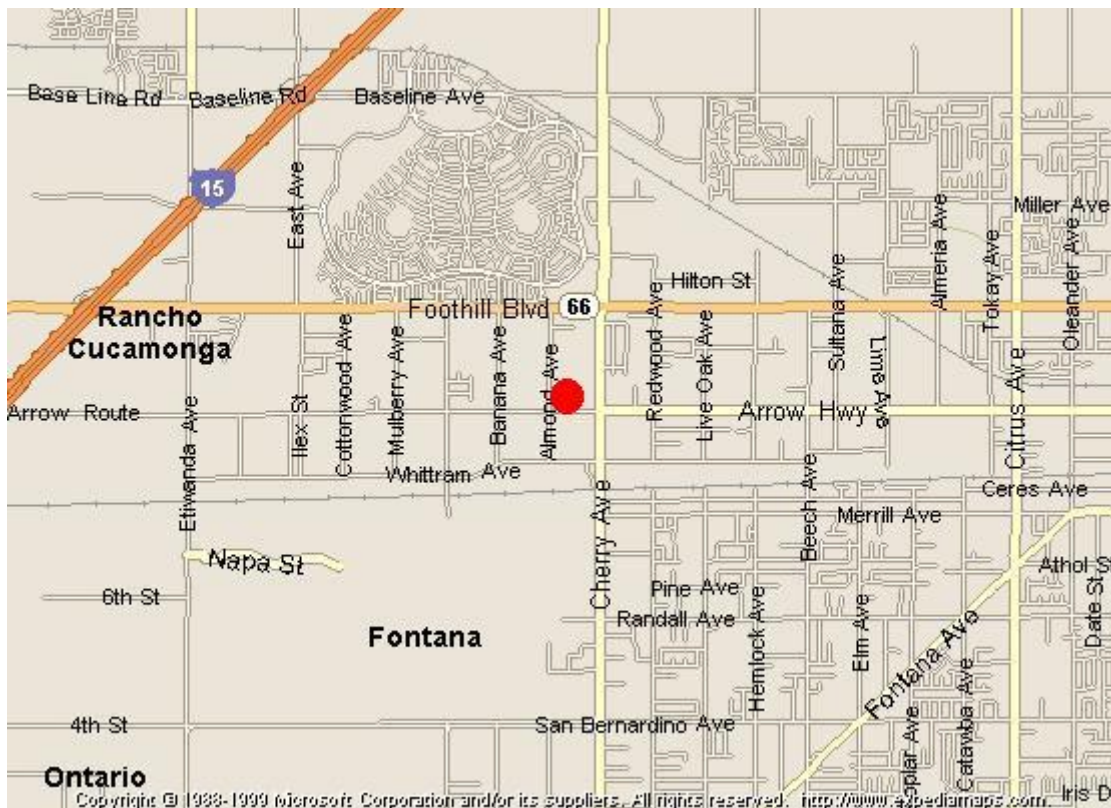


Looking at the probe from the South.

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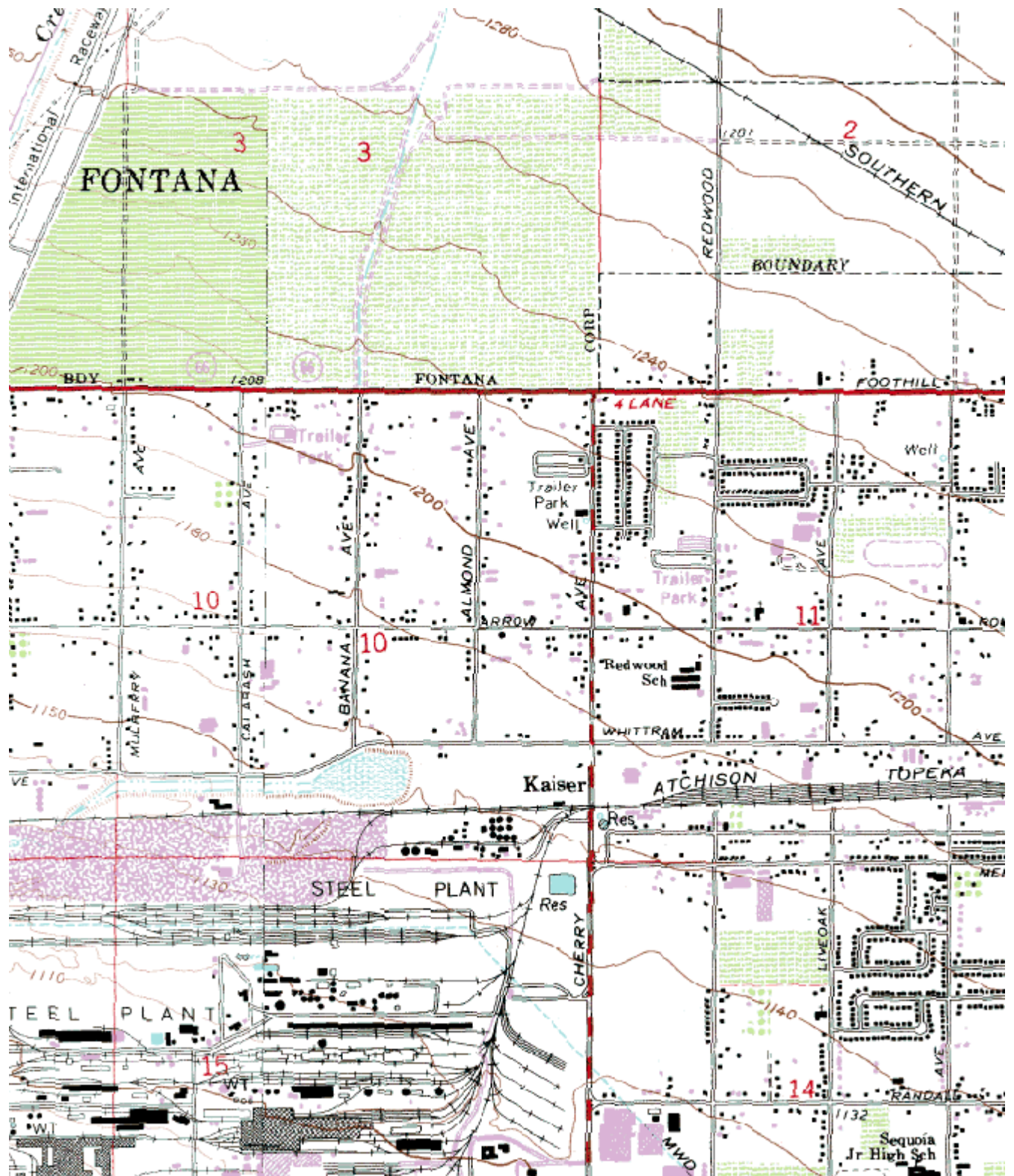
South Coast AQMD Site Survey Report for Fontana-Arrow Highway

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code		
060712002	36197	08/1981	South Coast AQMD (061)		

Site Address	County	Air Basin	Latitude	Longitude	Elevation
14360 Arrow Hwy Fontana, CA 92335	San Bernardino	South Coast	34° 06' 0"N	117° 29' 31"W	363



Detailed Site Information

Local site name	Fontana-Arrow Highway			
AQS ID	060712002			
GPS coordinates (decimal degrees)	Latitude: 34° 06' 0", Longitude: 117° 29' 31"			
Street Address	14360 Arrow Highway, Fontana, CA 92335			
County	San Bernardino			
Distance to roadways (meters)	86 – 92			
Traffic count (AADT, year)	12,500 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Gravel			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	Sulfur Dioxide, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Parameter code	42101	42602	44201	42401
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 360	API Teledyne 200E	API/Teledyne 400E	Thermo 43i
Method code	106	099	087	560
FRM/FEM/ARM/ other	FRM	FRM	FEM	FEM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Urban	Urban	Neighborhood
Monitoring start date (MM/DD/YYYY)	08/1981	08/1981	08/1981	08/1981
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.02	4.02	4.02	4.02
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0

Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	Teflon
Residence time for reactive gases (seconds)	5.1	6.0	5.5	6.5
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	Nightly
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	3/20/2018	3/20/2018	3/20/2018	3/20/2018
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

Pollutant, POC	PM10, 2	PM2.5, 11	24 Hour PM2.5, 1	
Primary / QA Collocated / Other	Primary	Primary	Primary	
Parameter code	See Table 26	See Table 26	See Table 26	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Highest Concentration	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Tisch	Met One SASS	Partisol 2025i	
Method code	141	See Table 26	145	
FRM/FEM/ARM/ other	FRM	Other	FRM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	08/1981	02/20/2004	01/1985	
Current sampling frequency (e.g. 1:3, continuous)	1:6	1:6	1:3	
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	No CFR mandated sampling schedule.	1:3	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	2.4	2.9	2.9	
Distance from supporting structure (meters)	2.4	2.9	2.9	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	Yes	
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	Monthly	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	04/12/2018, 10/09/2018	04/04/2018, 10/09/2018	04/12/2018, 10/09/2018	

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Met One 091	
Method code	065/065	061/061	015	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	

Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood/Urban	Neighborhood/Urban	Neighborhood/Urban	
Monitoring start date (MM/DD/YYYY)	08/1981	08/1981	08/1981	
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	9.0	2	
Distance from supporting structure (meters)	10	9.0	2	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	6	6	6	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	

Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**Fontana-Arrow Highway
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Fontana-Arrow Highway
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



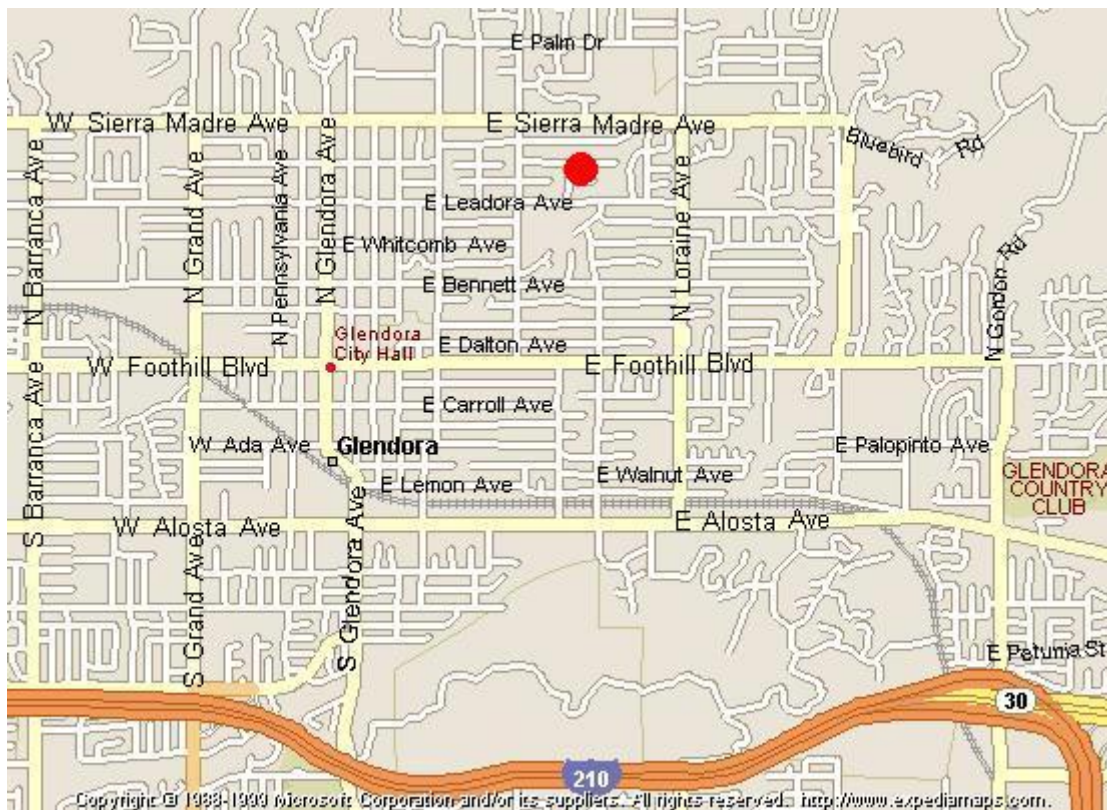
Looking at the probe from the South.



Looking at the probe from the West.

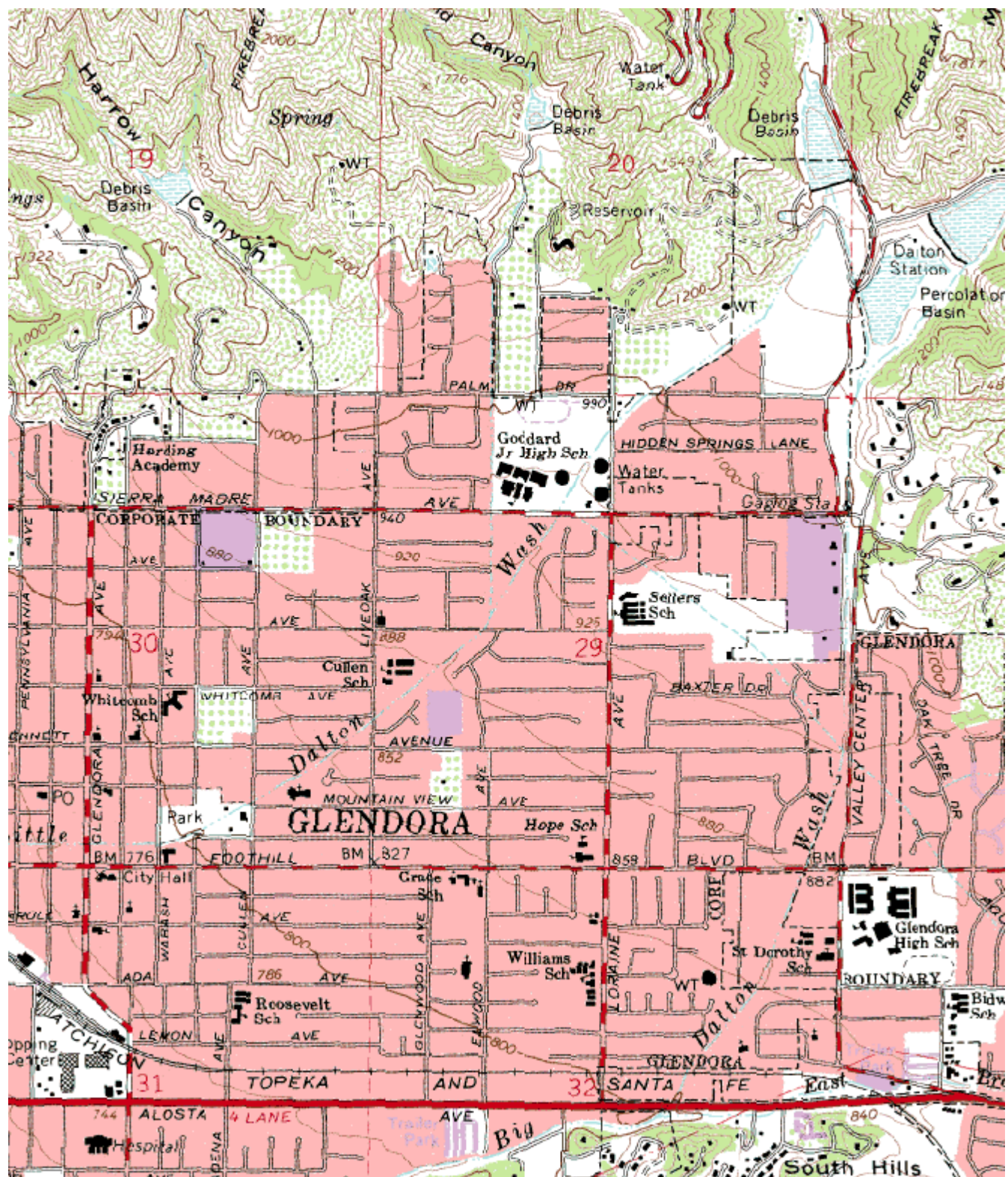
South Coast AQMD Site Survey Report for Glendora-Laurel

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code			
060370016	70591	08/1980	South Coast AQMD (061)			

Site Address	County	Air Basin	Latitude	Longitude	Elevation
840 Laurel Ave Glendora, CA 91741	Los Angeles	South Coast	34° 08' 39"N	117° 51' 01"W	278



Detailed Site Information

Local site name	Glendora-Laurel			
AQS ID	060370016			
GPS coordinates (decimal degrees)	Latitude: 34° 08' 39" Longitude: 117° 51' 01"			
Street Address	840 Laurel Avenue, Glendora, CA 91741			
County	Los Angeles			
Distance to roadways (meters)	121			
Traffic count (AADT, year)	1,834 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Dirt/weeds/gravel			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 2	Nitrogen Dioxide, 1	Ozone, 1	Continuous PM10, 3
Primary / QA Collocated / Other	N/A	N/A	N/A	Other
Parameter code	42101	42602	44201	81102
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Highest Concentration	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	Thermo 49i	Met One BAM 1020
Method code	158	074	087	122
FRM/FEM/ARM/ other	FRM	FRM	FEM	FEM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	08/1980	08/1980	08/1980	03/31/2010
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.2	4.2	4.2	4.95
Distance from supporting structure (meters)	1.1	1.1	1.1	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	16	16	16	16
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	8.8	13.5	10.7	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Monthly
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	08/31/2018	08/31/2018	08/31/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	03/08/2018, 09/14/2018

Pollutant, POC	Continuous PM2.5, 3	WS & D, 1/1	RH/T, 1/1	
Primary / QA Collocated / Other	Other	N/A	N/A	
Parameter code	88502	61101/61102	62201/62101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Met One BAM 1020	RM Young 05305	Rotronic HC2-S3	
Method code	731	065/065	061/061	
FRM/FEM/ARM/ other	Non-FEM	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	01/05/2006	08/1980	08/1980	
Current sampling frequency (e.g. 1:3, continuous)	1:1	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	4.9	6	4.7	
Distance from supporting structure (meters)	2.0	2.9	1.6	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	16	16	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	Monthly	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	03/08/2018, 09/14/2018	N/A	N/A	

**Glendora-Laurel
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Glendora-Laurel
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



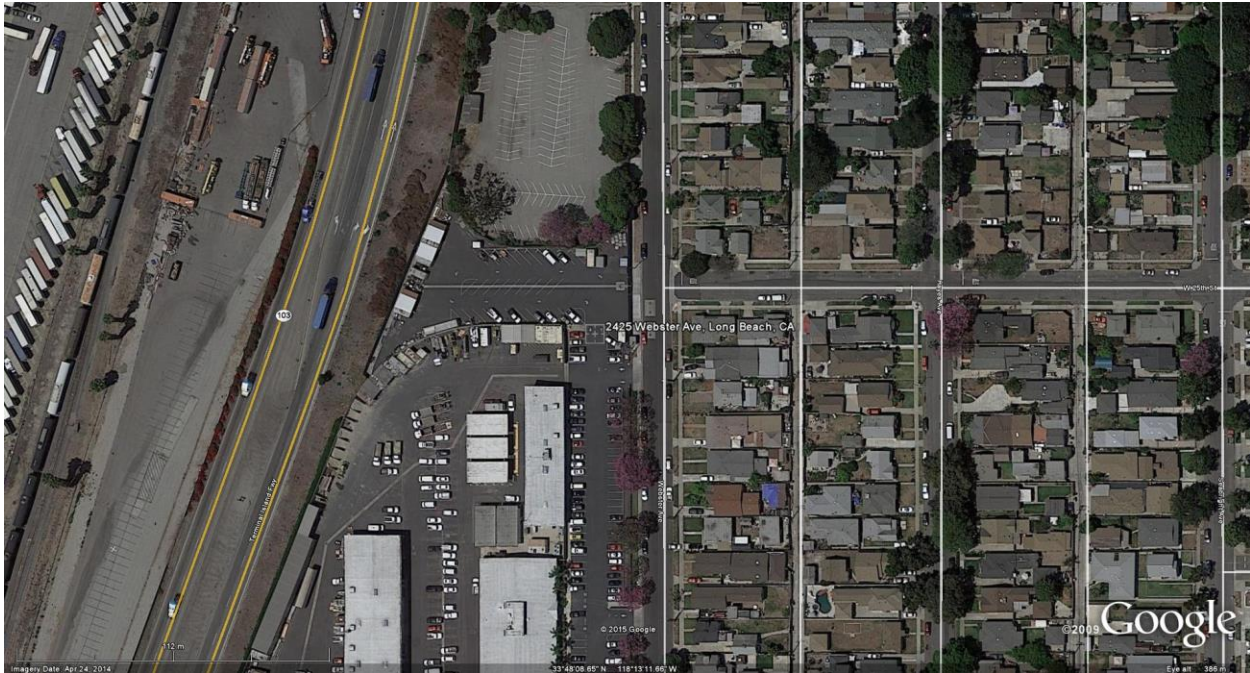
Looking at the probe from the South.



Looking at the probe from the West.

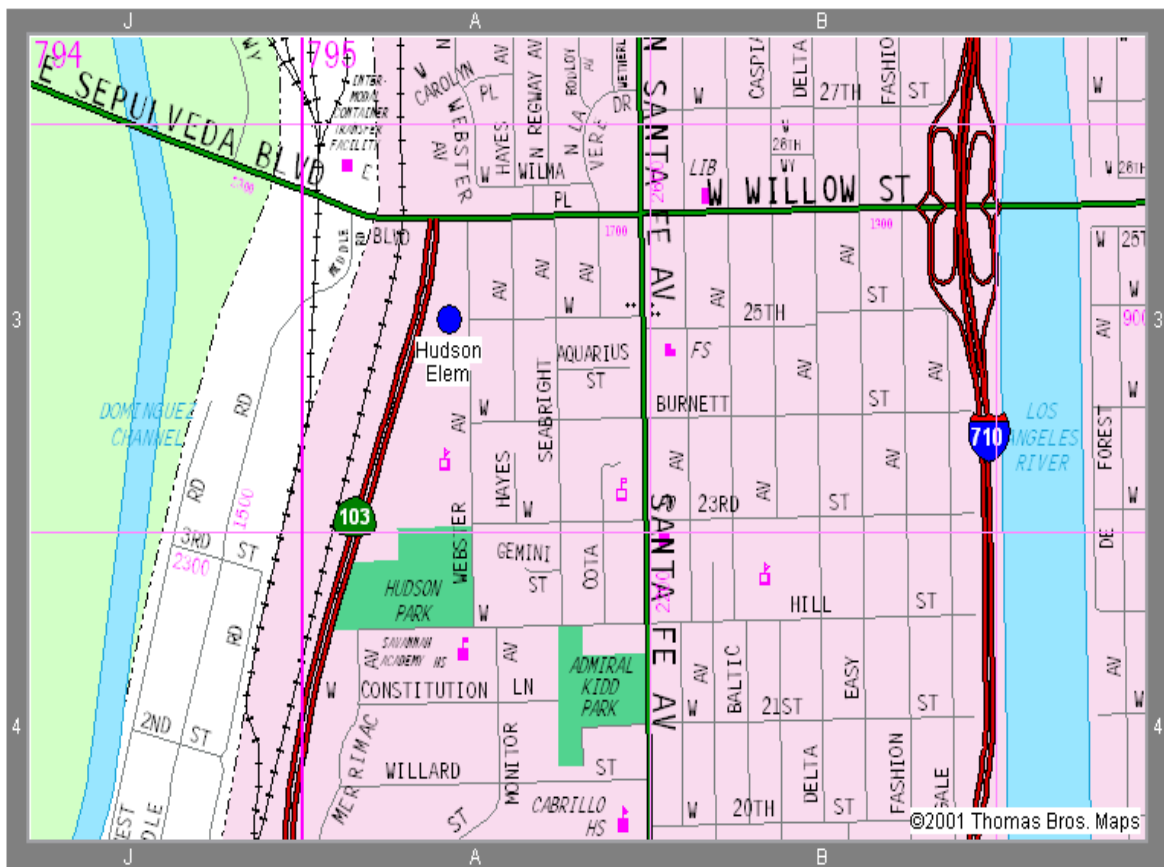
South Coast AQMD
Site Survey Report for Long Beach (Hudson)

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060374006	70033	01/2010	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
2425 Webster St. Long Beach, CA 90810	Los Angeles	South Coast	33° 48' 08" N	118° 13' 11" W	10



Detailed Site Information

Local site name	Long Beach (Hudson)			
AQS ID	060374006			
GPS coordinates (decimal degrees)	Latitude: 33° 48' 08" N Longitude: 118° 13' 11" W			
Street Address	2425 Webster St. Long Beach, CA 90810			
County	Los Angeles			
Distance to roadways (meters)	5			
Traffic count (AADT, year)	unavailable			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles, Long Beach-Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	Sulfur Dioxide, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Parameter code	42101	42602	44201	42401
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Highest Concentration	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba 370	Thermo 42i	Thermo 49i	Thermo 43i
Method code	158	074	087	560
FRM/FEM/ARM/ other	FRM	FRM	FEM	FEM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	1/10	1/10	1/10	1/10
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4	4	4	4
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	Teflon
Residence time for reactive gases (seconds)	5.3	10.6	7.5	15.1
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	Nightly
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	08/07/2018	08/07/2018	08/07/2018	08/10/2018
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

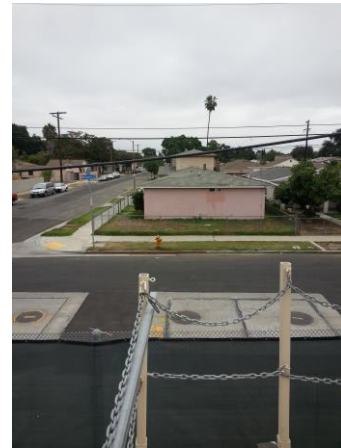
Pollutant, POC	PM10, 2	WS & D, 1/1	RH/T, 1/1	
Primary / QA Collocated / Other	Primary	N/A	N/A	
Parameter code	See Table 26	61101/61102	62201/62101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	GMW 1200 SSI, A Sampler	RM Young 05305	Rotronic HC2-S3	
Method code	063	065/065	061/061	
FRM/FEM/ARM/ other	FRM	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	01/10	01/2010	01/2010	
Current sampling frequency (e.g. 1:3, continuous)	1:6	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	11.7	6.0	5.3	
Distance from supporting structure (meters)	2.0	3.45	2.8	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	25	25	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	Monthly	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	04/10/2018, 10/10/2018	N/A	N/A	

Hudson (Long Beach)
Site Photos



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Hudson (Long Beach)
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



Looking at the probe from the South.



Looking at the probe from the West.

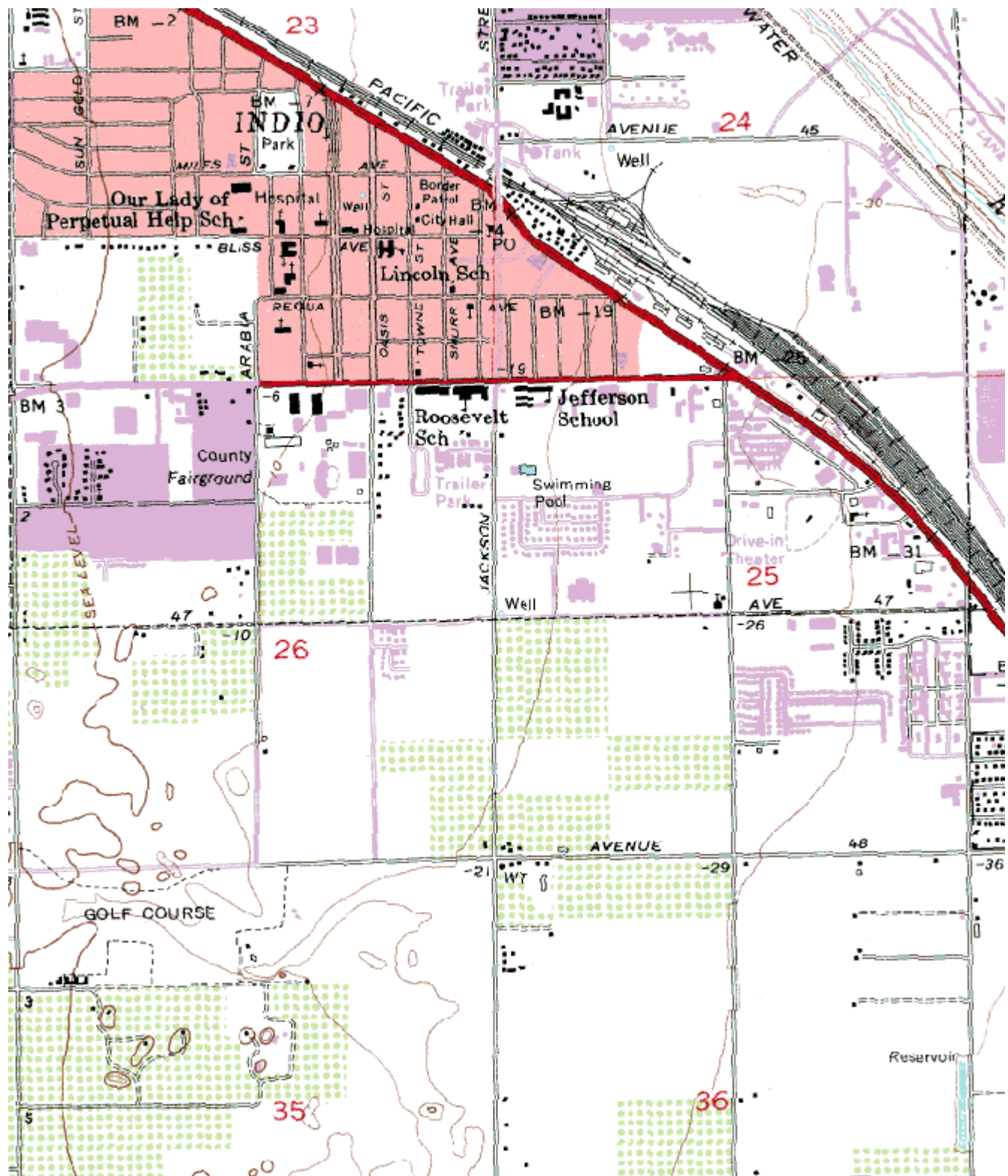
South Coast AQMD Site Survey Report for Indio-Jackson Street

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060652002	33157	01/1983	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
46990 Jackson St Indio, CA 92201	Riverside	Salton Sea	33° 42' 30"N	116° 12' 55"W	0



Detailed Site Information

Local site name	Indio-Jackson Street			
AQS ID	060652002			
GPS coordinates (decimal degrees)	Latitude: 33° 42' 30" Longitude: 116° 12' 55"			
Street Address	46990 Jackson Street, Indio, CA 92201			
County	Riverside			
Distance to roadways (meters)	88			
Traffic count (AADT, year)	16,258 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt/dirt			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Ozone, 1	PM10, 2	PM10, 4	PM10, 6
Primary / QA Collocated / Other	N/A	Primary	Primary	QA Collocated
Parameter code	44201	See Table 26	See Table 26	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Highest Concentration	Highest Concentration	Highest Concentration
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	API/Teledyne 400E	Sierra Andersen 1200 SSI, A Sampler	Sierra Andersen 1200 SSI, B Sampler	Sierra Andersen 1200 SSI, C Sampler
Method code	087	063	063	063
FRM/FEM/ARM/ other	FEM	FRM	FRM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD	South Coast AQMD	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	01/1983	01/1983	03/2003	03/2003
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:6	1:3	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:3	1:6	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	9.0	3.5	3.5	3.5
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	2.0	2.0	2.0
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A	N/A
Residence time for reactive gases (seconds)	10.4	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	Yes	Yes	Yes	Yes
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	Monthly	Monthly	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	10/26/2018	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	04/03/2018, 09/28/2018	04/03/2018, 10/12/2018	04/03/2018, 09/28/2018

Pollutant, POC	Continuous PM10, 3	24 Hour PM2.5, 1		
Primary / QA Collocated / Other	Other	Primary		
Parameter code	81102	See Table 26		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Highest Concentration	Population Exposure		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	N/A	N/A		
Instrument manufacturer and model	Thermo Electron 1400A TEOM	Partisol 2025i		
Method code	079	145		
FRM/FEM/ARM/ other	FEM	FRM		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood		
Monitoring start date (MM/DD/YYYY)	02/09/2009	02/04/1999		
Current sampling frequency (e.g.1:3, continuous)	1:1	1:3		
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	7.0	4.8		
Distance from supporting structure (meters)	2.0	2.0		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	N/A	N/A		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	4.0	2.0		
Unrestricted airflow (degrees)	360°	360°		

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	Yes		
Frequency of flow rate verification for manual PM samplers	N/A	Monthly		
Frequency of flow rate verification for automated PM analyzers	Monthly	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	03/01/2018, 09/04/2018	04/03/2018, 09/28/2018		

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Met One 091	
Method code	065/065	061/061	015	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab,	N/A	N/A	N/A	

Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	01/1983	01/1983	01/1983	
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	4.0	4.0	
Distance from supporting structure (meters)	10	2.5	2.5	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	

Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**Indio-Jackson Street
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Indio-Jackson Street
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



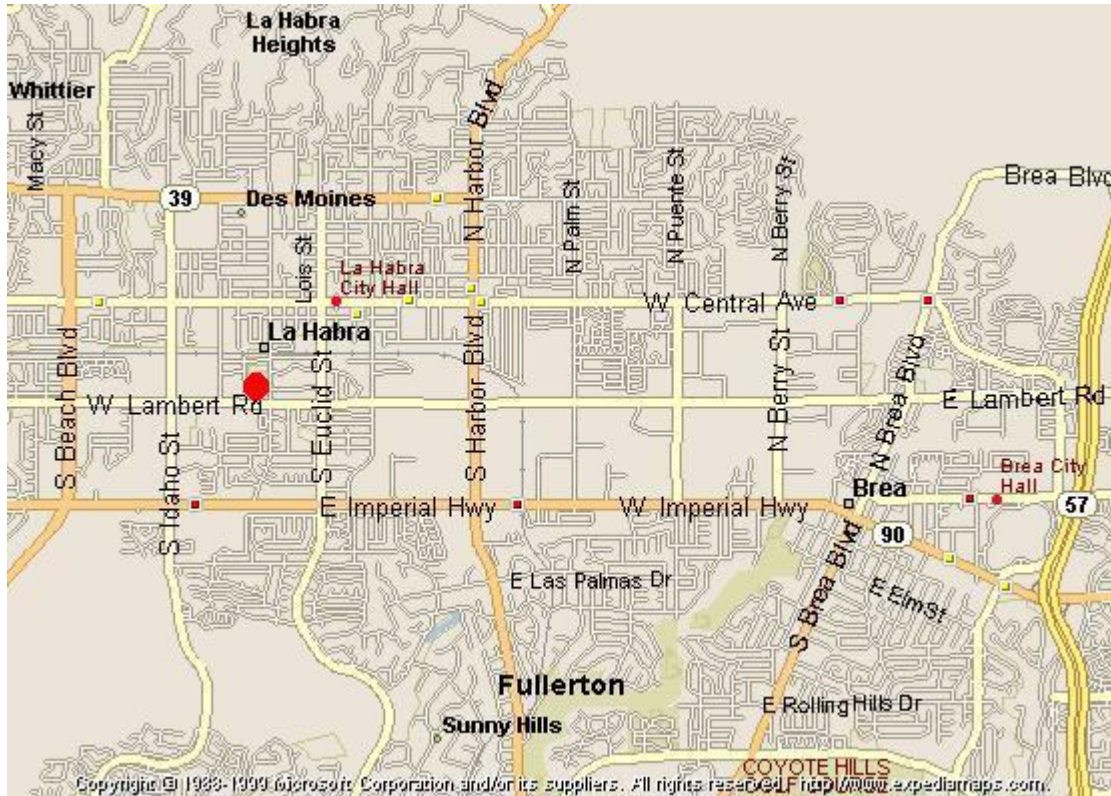
Looking at the probe from the South.



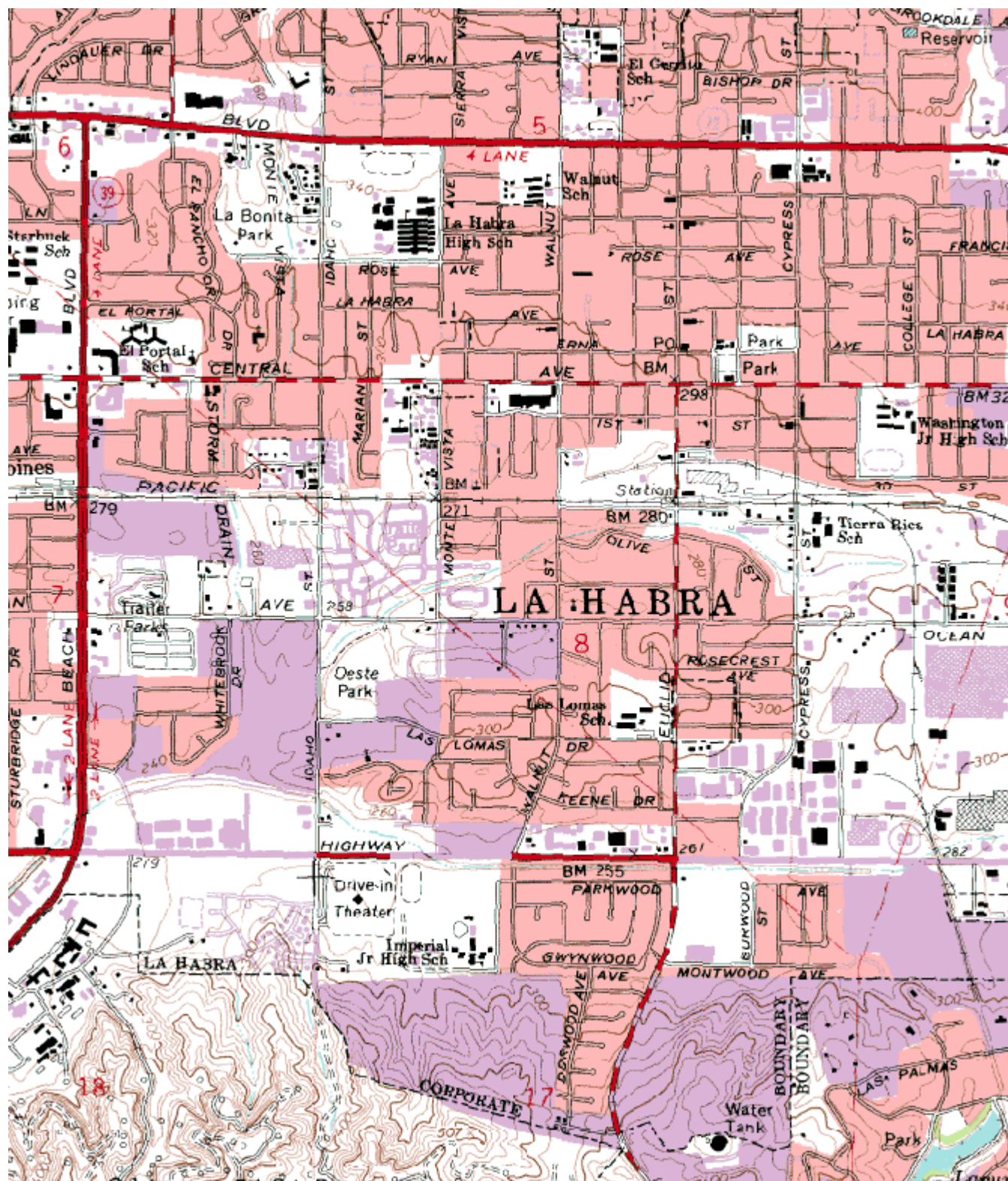
Looking at the probe from the West.

South Coast AQMD Site Survey Report for La Habra

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code			
060595001	30177	08/1960	South Coast AQMD (061)			
Site Address		County	Air Basin	Latitude	Longitude	Elevation
621 W Lambert Rd La Habra, CA 90631		Orange	South Coast	33° 55' 30"N	117° 57' 09"W	82



Detailed Site Information

Local site name	La Habra			
AQS ID	060595001			
GPS coordinates (decimal degrees)	Latitude: 33° 55' 30" Longitude: 117° 57' 09"			
Street Address	621 W Lambert Rd, La Habra, CA 90631			
County	Orange			
Distance to roadways (meters)	40			
Traffic count (AADT, year)	66,200 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 2	Ozone, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	42101	42602	44201	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Horiba APMA 360	Thermo 42i	Thermo 49i	
Method code	106	074	047	
FRM/FEM/ARM/ other	FRM	FRM	FEM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Urban	Neighborhood	
Monitoring start date (MM/DD/YYYY)	08/1960	08/1960	08/1960	
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	5.3	5.3	5.3	
Distance from supporting structure (meters)	2.0	2.0	2.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	

Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	
Residence time for reactive gases (seconds)	5.4	10.7	7.5	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	06/26/2018	06/26/2018	06/26/2018	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

Pollutant, POC	WS & D, 1/1	RH/T, 1/1		
Primary / QA Collocated / Other	N/A	N/A		
Parameter code	61101/61102	62201/62101		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Meteorological	Meteorological		

Monitor (type)	SLAMS	SLAMS		
Network Affiliation	N/A	N/A		
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3		
Method code	065/065	061/061		
FRM/FEM/ARM/other	N/A	N/A		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood/Urban	Neighborhood/Urban		
Monitoring start date (MM/DD/YYYY)	08/1960	08/1960		
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous		
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	10	9.5		
Distance from supporting structure (meters)	10	9.5		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	N/A	N/A		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	N/A		
Unrestricted airflow (degrees)	360°	360°		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		

Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A		

**La Habra
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**La Habra
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



Looking at the probe from the South.

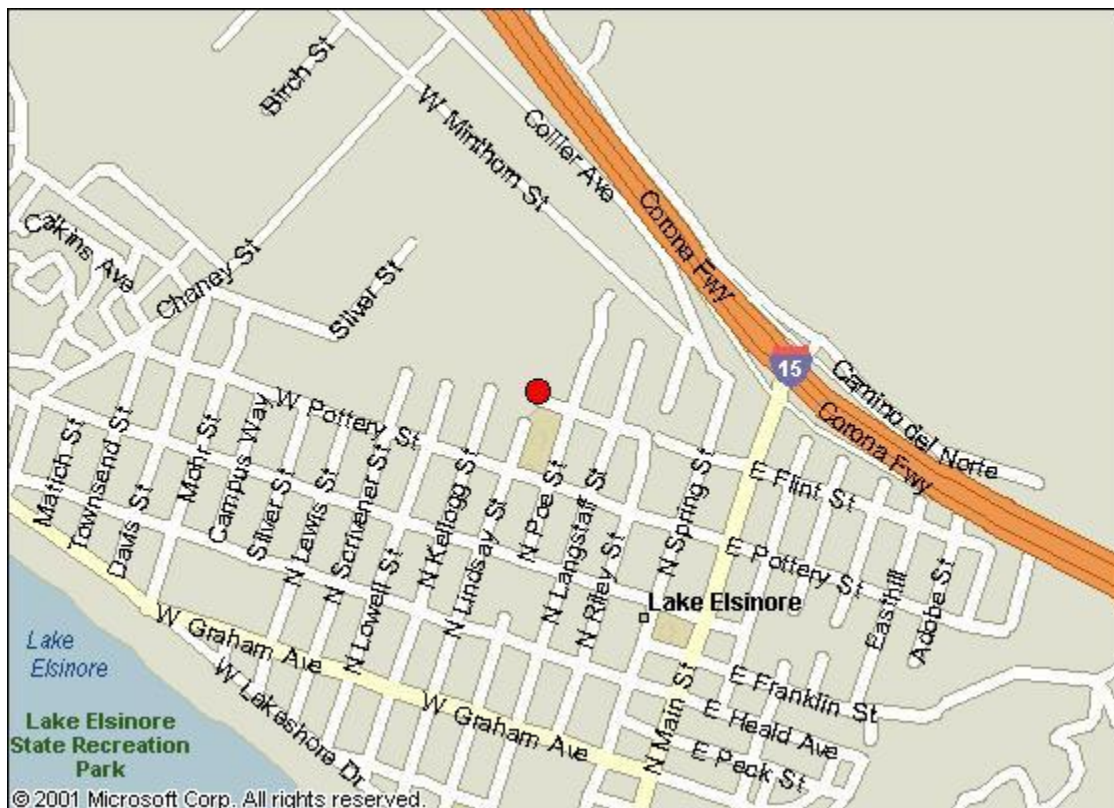


Looking at the probe from the West.

South Coast AQMD

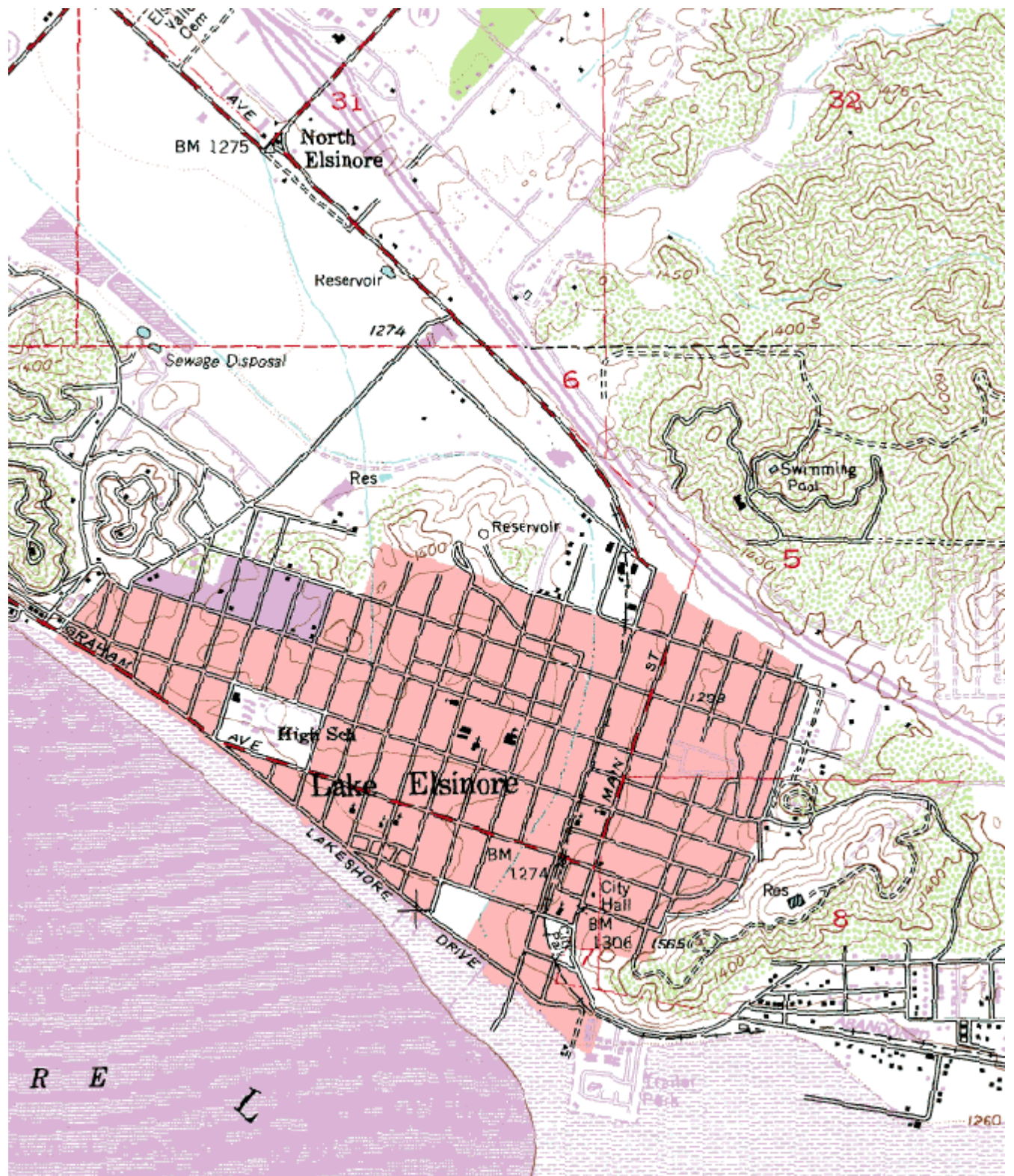
Site Survey Report for Lake Elsinore-W Flint Street

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code			
060659001	33158	06/1987	South Coast AQMD (061)			

Site Address	County	Air Basin	Latitude	Longitude	Elevation
506 W Flint St Lake Elsinore, CA 92530	Riverside	South Coast	33° 40' 35"N	117° 19' 51"W	410



Detailed Site Information

Local site name	Lake Elsinore-W Flint Street			
AQS ID	060659001			
GPS coordinates (decimal degrees)	Latitude: 33° 40' 35" Longitude: 117° 19' 51"			
Street Address	506 W Flint St, Lake Elsinore, CA 92530			
County	Riverside			
Distance to roadways (meters)	50			
Traffic count (AADT, year)	< 2,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	Continuous PM10, 3
Primary / QA Collocated / Other	N/A	N/A	N/A	Other
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	Thermo 49i	R&P 1400A TEOM
Method code	106	074	047	079
FRM/FEM/ARM/ other	FRM	FRM	FEM	FEM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	06/1987	06/1987	06/1987	01/10/1994
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.1	4.1	4.1	4.35
Distance from supporting structure (meters)	1.8	1.8	1.8	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A

Distance from trees (meters)	17	17	17	10
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	4.1	9.8	6.4	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Monthly
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	07/10/2018	07/10/2018	07/10/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	03/06/2018, 09/06/2018

Pollutant, POC	Continuous PM2.5, 3	WS & D, 1/1	RH/T, 1/1	
Primary / QA Collocated / Other	Other	N/A	N/A	
Parameter code	88502	61101/61102	62201/62101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	

Instrument manufacturer and model	Met One BAM 1020	RM Young 05305	Rotronic HC2-S3	
Method code	731	065/065	061/061	
FRM/FEM/ARM/other	Non-FEM	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	01/17/2006	06/1987	06/1987	
Current sampling frequency (e.g. 1:3, continuous)	1:1	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	2.6	10	9.0	
Distance from supporting structure (meters)	2.0	10	9.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	10	17	17	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	

Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	Monthly	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	03/06/2018, 09/06/2018	N/A	N/A	

**Lake Elsinore-W Flint Street
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Lake Elsinore-W Flint Street
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.

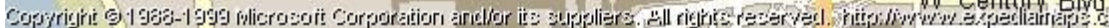


Looking at the probe from the South.



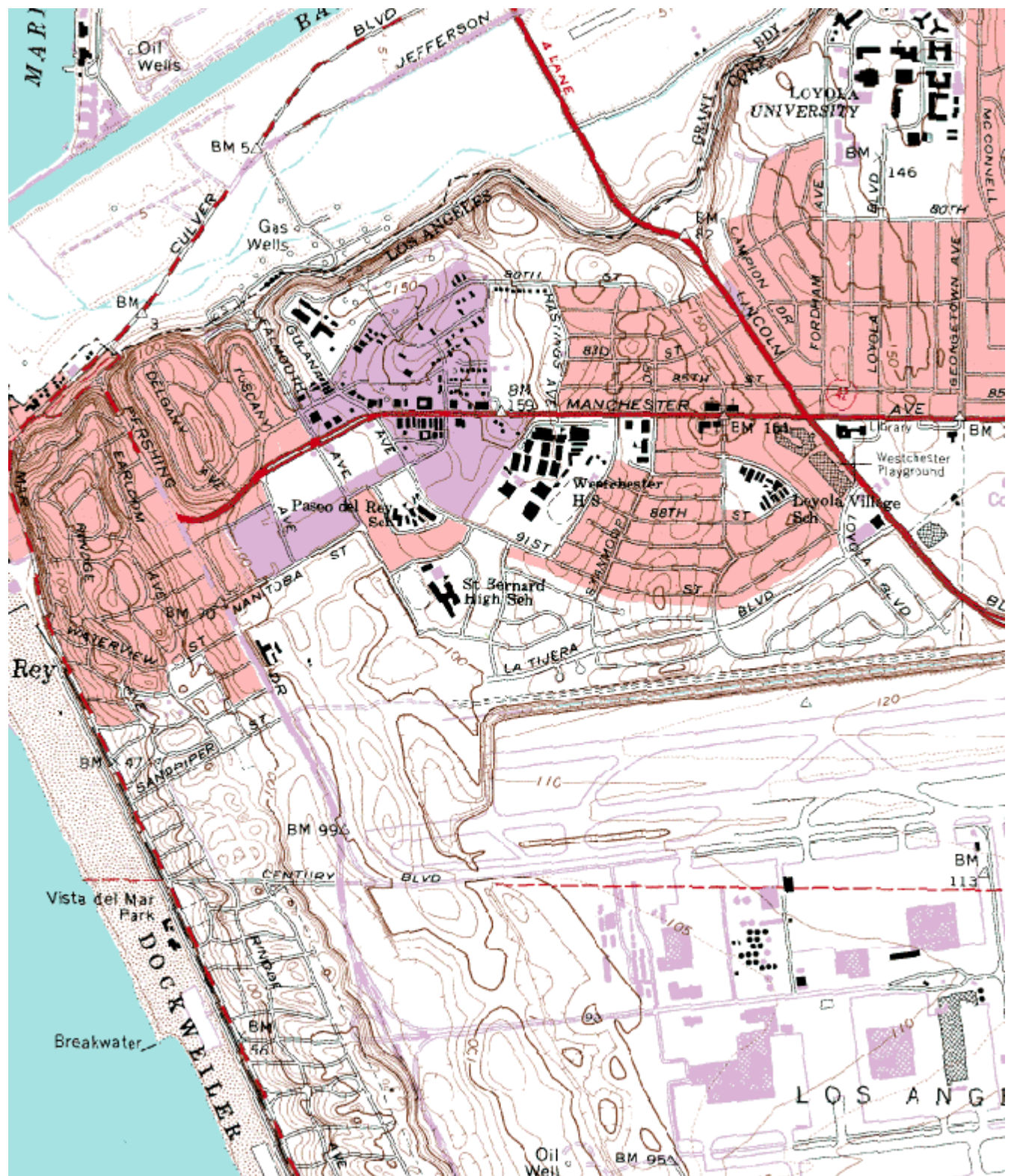
Looking at the probe from the West.

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060375005	70111	04/2004	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
7201 W Westchester Pkwy Los Angeles, CA 90045	Los Angeles	South Coast	33° 57' 18"N	118° 25' 49"W	37



Detailed Site Information

Local site name	LAX - Hastings			
AQS ID	060375005			
GPS coordinates (decimal degrees)	Latitude: 33° 57' 18" Longitude: 118° 25' 49"			
Street Address	7201 W Westchester Pkwy, Los Angeles, CA 90045			
County	Los Angeles			
Distance to roadways (meters)	85 - 92			
Traffic count (AADT, year)	2,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	Sulfur Dioxide, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Parameter code	42101	42602	44201	42401
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure, Background	Population Exposure, Background	Population Exposure, Background	Population Exposure, Background
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	API/Teledyne 400E	Thermo 43i-TLE
Method code	158	074	087	560
FRM/FEM/ARM/ other	FRM	FRM	FEM	FEM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Middle	Middle	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	04/12/2004	04/12/2004	04/12/2004	04/12/2004
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.2	4.2	4.2	4.2
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	20	20	20	20
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	Teflon
Residence time for reactive gases (seconds)	7.3	13.3	8.2	14.8
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	Nightly
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	10/09/2018	10/05/2018	10/09/2018	10/09/2018
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

Pollutant, POC	Lead, 1	PM10,1		
Primary / QA Collocated / Other	Primary	Primary		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Population Exposure/ Background	Population Exposure/Background		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	N/A	N/A		
Instrument manufacturer and model	TSP, Hi Q	GMW 1200 SSI		
Method code	110	063		
FRM/FEM/ARM/ other	FRM	FRM		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD		
Reporting Agency				
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood		
Monitoring start date (MM/DD/YYYY)	04/12/2004	04/12/2004		
Current sampling frequency (e.g. 1:3, continuous)	1:6	1:6		
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	1:6		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	2.0	2.0		
Distance from supporting structure (meters)	1.1	1.1		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	16	16		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	N/A		
Unrestricted airflow (degrees)	360°	360°		

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/22/2018, 10/30/2018	05/22/2018, 11/07/2018		

**LAX - Hastings
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**LAX - Hastings
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



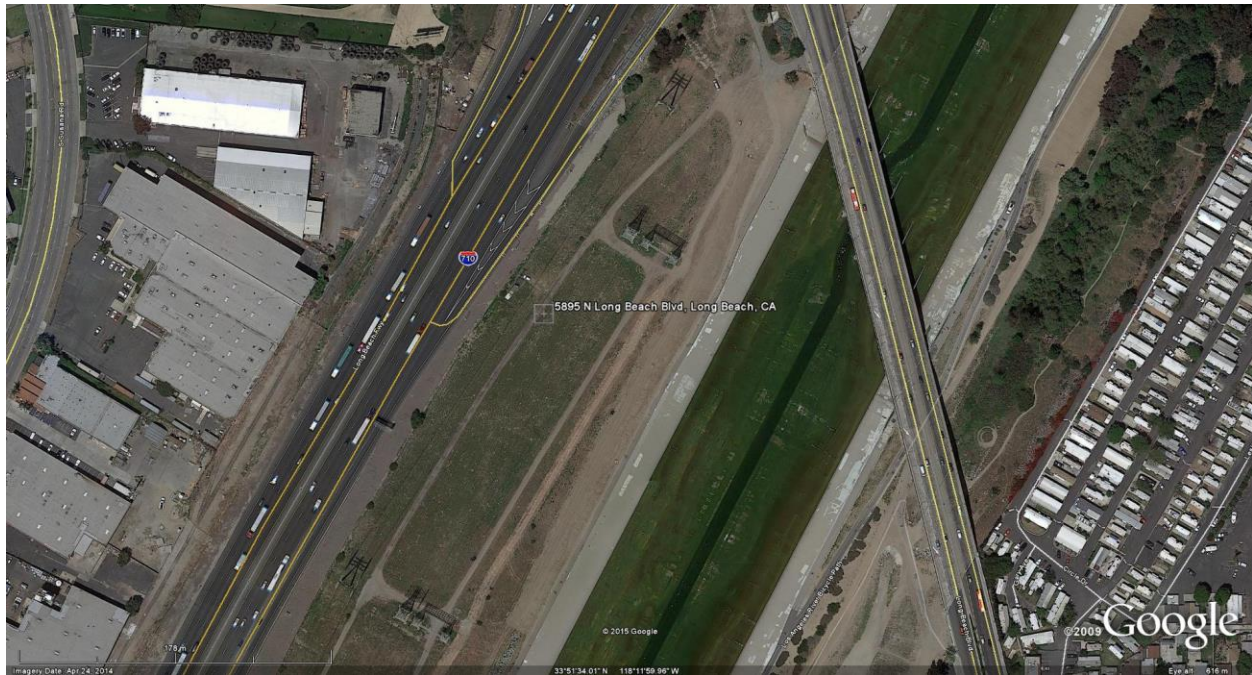
Looking at the probe from the South.



Looking at the probe from the West.

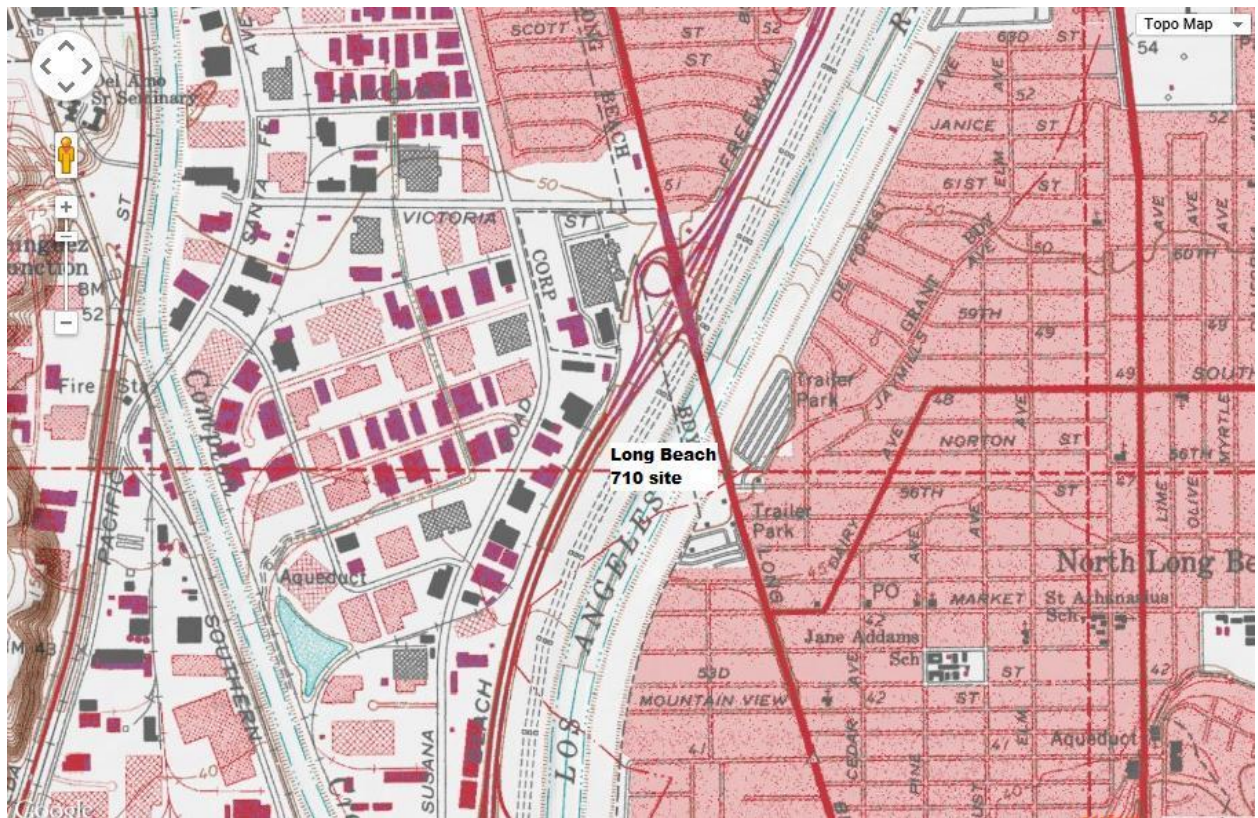
Quality Assurance
Site Survey Report for Long Beach Route 710 Near Road

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060374008	70032	1/1/2015	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
5895 Long Beach Blvd	Los Angeles	South Coast	33° 51' 34"N	118° 12' 01"W	12 m



Detailed Site Information

Local site name	710 Near Road			
AQS ID	060374008			
GPS coordinates (decimal degrees)	Latitude: 33° 51' 34"N Longitude: 118° 12' 01"W			
Street Address	5895 Long Beach Blvd., Long Beach, CA 90806			
County	Los Angeles			
Distance to roadways (meters)	20			
Traffic count (AADT, year)	192,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Concrete/dry vegetation			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	Nitrogen Dioxide, 1	24 Hour PM2.5, 1	Continuous PM2.5, 3	
Primary / QA Collocated / Other	N/A	Primary	Other	
Parameter code	42602	See Table 26	88101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	Near Road	Near Road	Near Road	
Instrument manufacturer and model	Thermo 42i	Partisol 2025i	Thermo 5014	
Method code	074	145	183	
FRM/FEM/ARM/ other	FRM	FRM	FEM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Micro	Micro	Micro	
Monitoring start date (MM/DD/YYYY)	01/2015	1/2015	1/2016	
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	4.5	4.5	4.5	
Distance from supporting structure (meters)	2.0	2.0	2.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between colocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	NA	NA	
Residence time for reactive gases (seconds)	15.2	NA	NA	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	Yes	Yes	
Frequency of flow rate verification for manual PM samplers	N/A	Monthly	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly	
Frequency of one-point QC check for gaseous instruments	Nightly	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	07/26/2018	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	05/16/2018, 11/06/2018	04/10/2018, 09/27/2018	

Pollutant, POC	WS & D, 1/1	RH/T, 1/1		
Primary / QA Collocated / Other	N/A	N/A		
Parameter code	61101/61102	62201/62101		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Meteorological	Meteorological		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	Near Road	Near Road		
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3		
Method code	065/065	061/061		
FRM/FEM/ARM/ other	N/A	N/A		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood		
Monitoring start date (MM/DD/YYYY)	08/2001	08/2001		
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous		
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	7.2	6.2		
Distance from supporting structure (meters)	7.2	3.7		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	N/A	N/A		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	N/A		
Unrestricted airflow (degrees)	360°	360°		

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A		

**Long Beach Route 710 Near Road
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

Long Beach Route 710 Near Road

Site Photos (Cont.)



Looking at the probe from the North.



Looking at the probe from the East.



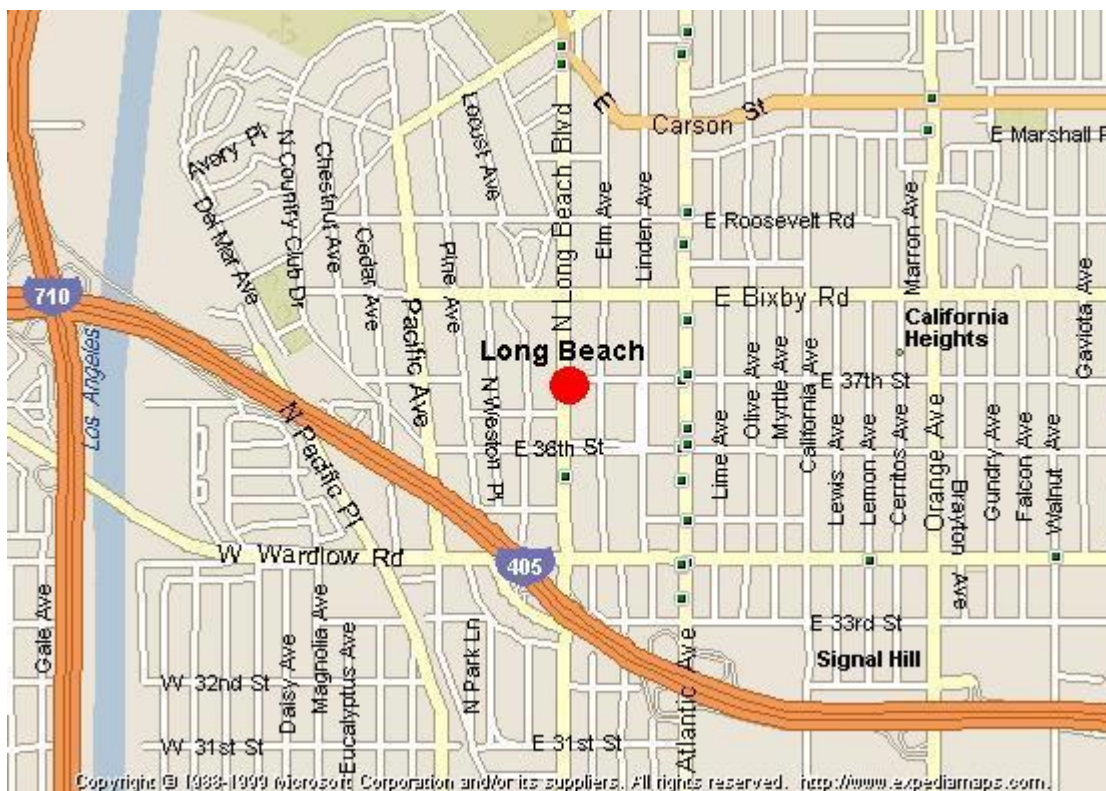
Looking at the probe from the South.



Looking at the probe from the West.

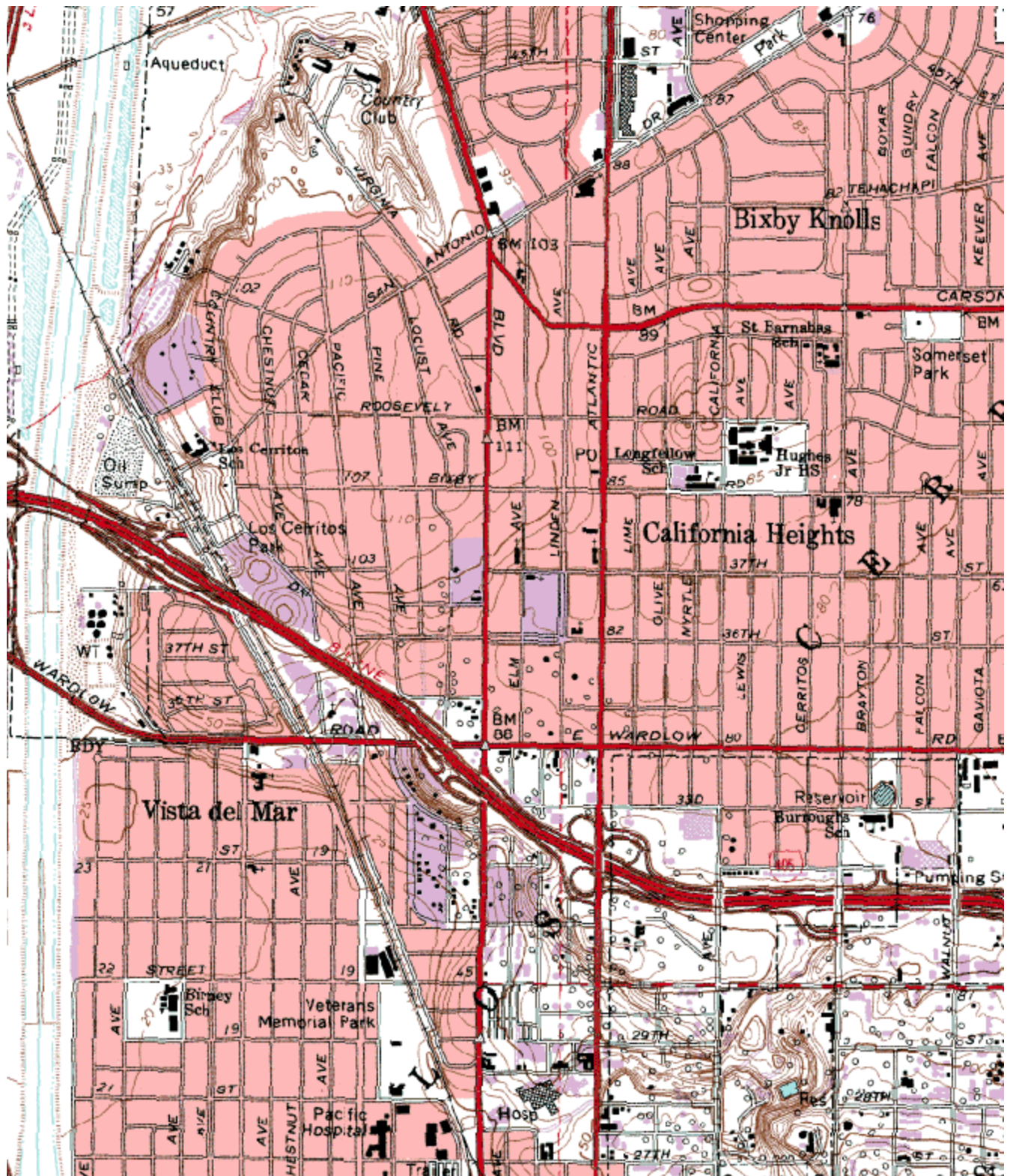
South Coast AQMD Site Survey Report for Long Beach (North)

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060374002	70072	10/1962	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
3648 N Long Beach Blvd Long Beach, CA 90807	Los Angeles	South Coast	33° 49' 25"N	118° 11' 20"W	29



Detailed Site Information

Local site name	Long Beach (North)			
AQS ID	060374002			
GPS coordinates (decimal degrees)	Latitude: 33° 49' 25" Longitude: 118° 11' 20"			
Street Address	3648 N Long Beach Blvd, Long Beach, CA 90807			
County	Los Angeles			
Distance to roadways (meters)	497			
Traffic count (AADT, year)	19,900 / 2012; 405/Long Beach Blvd., 280,000, 2011			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	24 Hour PM2.5, 1			
Primary / QA Collocated / Other	Primary			
Parameter code	See Table 26			
Basic monitoring objective(s)	NAAQS			
Site type(s)	Highest Concentration			
Monitor (type)	SLAMS			
Network Affiliation	N/A			
Instrument manufacturer and model	Partisol 2025i			
Method code	145			
FRM/FEM/ARM/ other	FRM			
Collecting Agency	South Coast AQMD			
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD			
Reporting Agency	South Coast AQMD			
Spatial scale (e.g. micro, neighborhood)	Neighborhood			
Monitoring start date (MM/DD/YYYY)	01/03/99			
Current sampling frequency (e.g. 1:3, continuous)	1:3			
Calculated sampling frequency (e.g. 1:3/1:1)	1:3			
Sampling season (MM/DD-MM/DD)	01/01-12/31			
Probe height (meters)	2.8			
Distance from supporting structure (meters)	2.0			
Distance from obstructions on roof (meters)	N/A			

Distance from obstructions not on roof (meters)	N/A			
Distance from trees (meters)	20			
Distance to furnace or incinerator flue (meters)	N/A			
Distance between collocated monitors (meters)	N/A			
Unrestricted airflow (degrees)	360°			
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A			
Residence time for reactive gases (seconds)	N/A			
Will there be changes within the next 18 months? (Y/N)	No			
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	Yes			
Frequency of flow rate verification for manual PM samplers	Monthly			
Frequency of flow rate verification for automated PM analyzers	N/A			
Frequency of one-point QC check for gaseous instruments	N/A			
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A			
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/03/2018, 10/11/2018			

**Long Beach (North)
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.

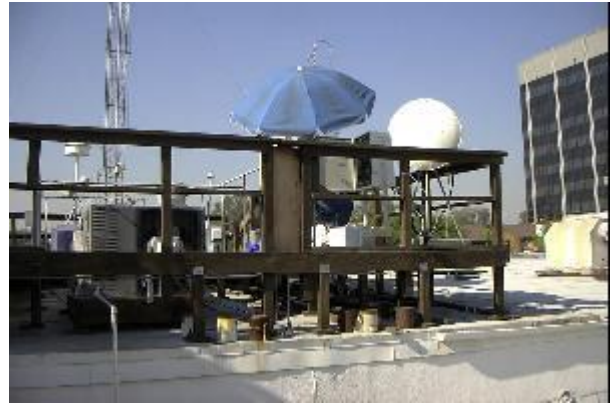


Looking West from the probe.

**Long Beach (North)
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.

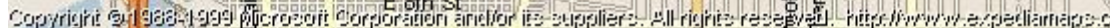


Looking at the probe from the South.

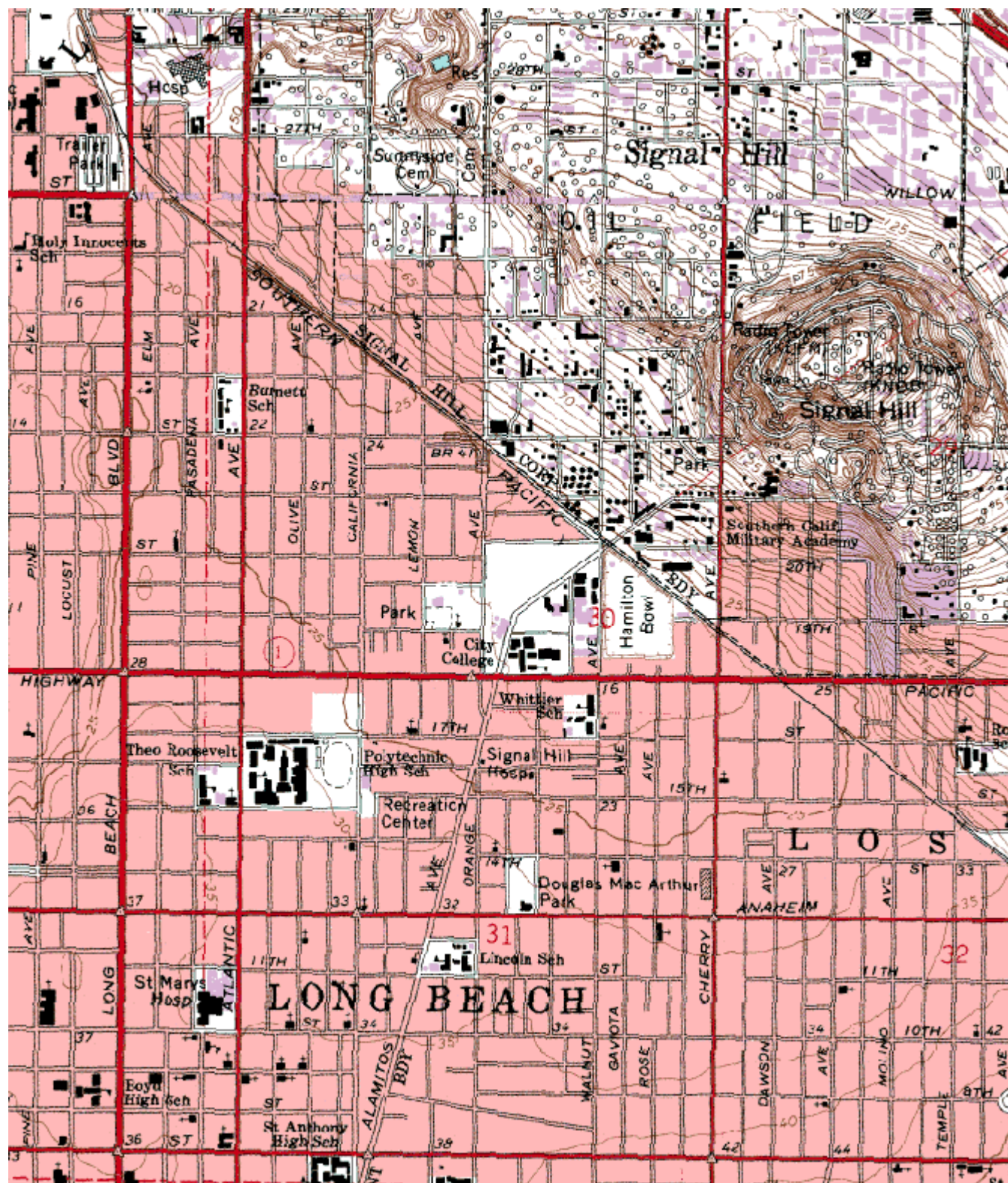


Looking at the probe from the West.

Last updated: May, 2019



Site Address	County	Air Basin	Latitude	Longitude	Elevation
1305 E. Pacific Coast Hwy Long Beach, CA 90806	Los Angeles	South Coast	33° 47' 32"N	118° 10' 31"W	6



Detailed Site Information

Local site name	South Long Beach			
AQS ID	060374004			
GPS coordinates (decimal degrees)	Latitude: 33° 47' 32" Longitude: 118° 10' 31"			
Street Address	1305 E Pacific Coast Hwy, Long Beach, CA 90806			
County	Los Angeles			
Distance to roadways (meters)	86			
Traffic count (AADT, year)	10,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	PM10, 2	Lead, 2	Continuous PM2.5, 3	24 Hour PM2.5, 1
Primary / QA Collocated / Other	Primary	N/A	Other	Primary
Parameter code	See Table 26	14129	88101	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Tisch TE-6001	Tisch TE 300-310 TSP	Met One BAM 1020	Partisol 2025i
Method code	141	110	170	145
FRM/FEM/ARM/ other	FRM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	06/20/2003	06/20/2003	06/20/2003	06/20/2003
Current sampling frequency (e.g.1:3, continuous)	1:6	1:6	1:1	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	1:6	N/A	1:3
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	3.0	3.0	3.0	3.0
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	1.5 (Flow <200 lpm)	1.5 (Flow <200 lpm)
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	No, unless the manual sampler has missing data.	Yes
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	N/A	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/09/2018, 10/10/2018	05/09/2018, 10/10/2018	03/14/2018, 09/27/2018	05/09/2018, 10/10/2018

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Met One Sonic Anemometer 50.5	Met One 083D	Met One 091	
Method code	061/061	061/061	015	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	08/2001	08/2001	08/2001	
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	9.5	1.5	
Distance from supporting structure (meters)	10	9.5	1.5	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	

Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**South Long Beach
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**South Long Beach
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



Looking at the probe from the South.

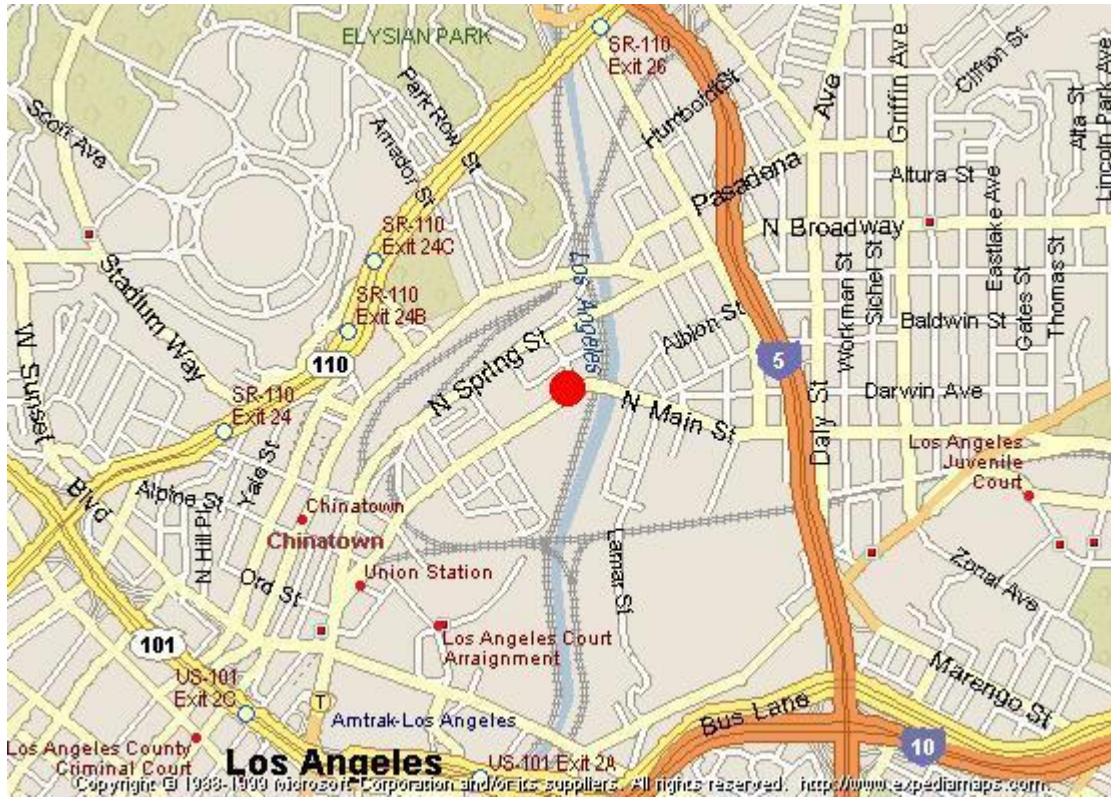


Looking at the probe from the West.

South Coast AQMD

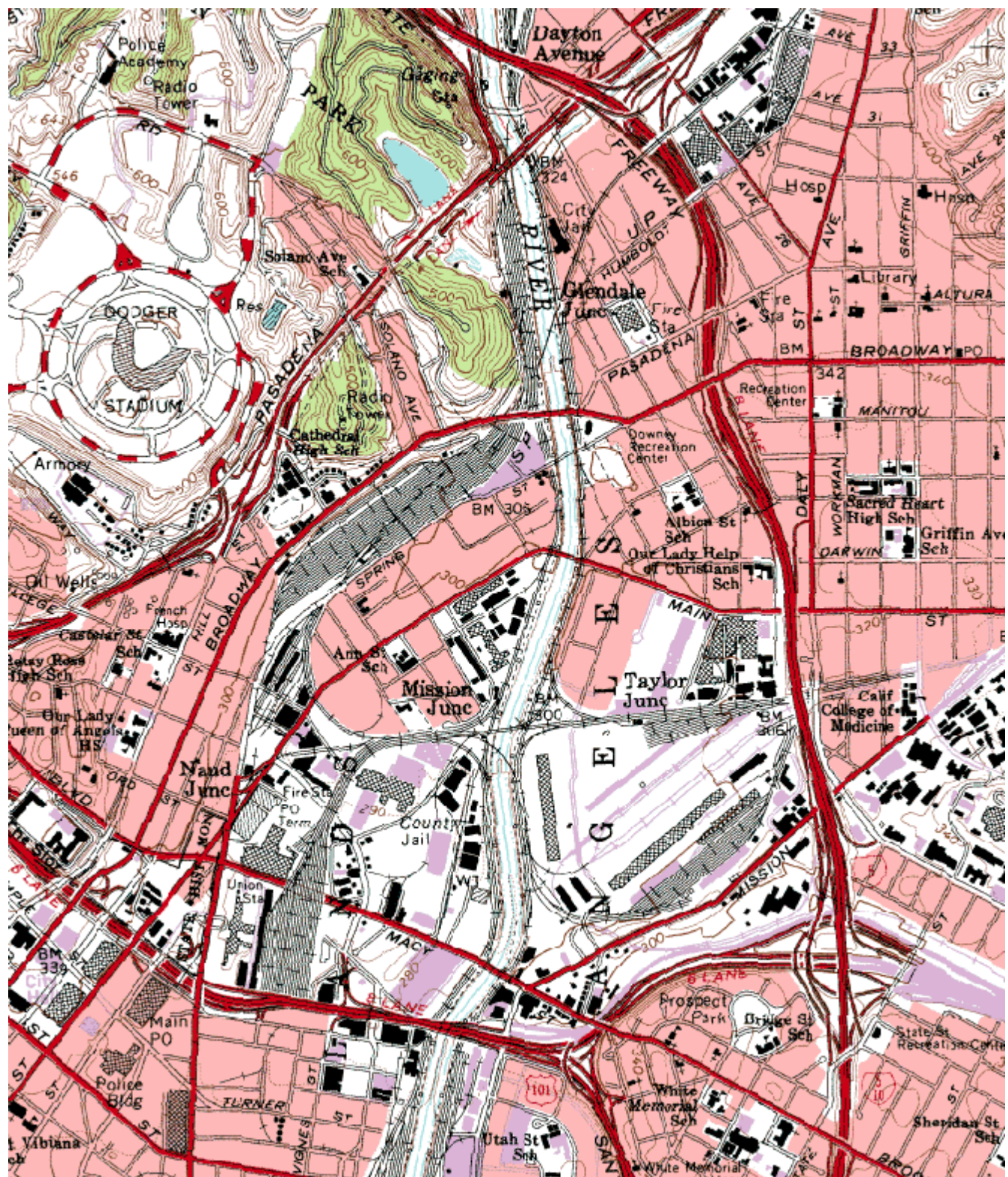
Site Survey Report for Los Angeles (Central)-North Main Street

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060371103	70087	09/1979	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
1630 North Main Street Los Angeles, CA 90012	Los Angeles	South Coast	34° 03' 59"N	118° 13' 36"W	89



Detailed Site Information

Local site name	Los Angeles-North Main Street			
AQS ID	060371103			
GPS coordinates (decimal degrees)	Latitude: 34° 03' 59" Longitude: 118° 13' 36"			
Street Address	1630 North Main Street, Los Angeles, CA 90012			
County	Los Angeles			
Distance to roadways (meters)	51 - 71			
Traffic count (AADT, year)	15,276 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles, Long Beach-Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	Sulfur Dioxide, 9
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Parameter code	42101	42602	44201	42401
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Highest Concentration	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	PAMS\NCore	PAMS\NCore	PAMS\NCore	PAMS\NCore
Instrument manufacturer and model	Horiba 370	Thermo 42i	API/Teledyne 400E	Thermo 43i-TLE
Method code	158	074	087	560
FRM/FEM/ARM/ other	FRM	FRM	FEM	FEM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/1979	09/1979	09/1979	09/1979
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	12.3	12.3	12.3	12.3
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	45	45	45	45
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	Teflon
Residence time for reactive gases (seconds)	6.5	12.9	7.2	15.6 (NCORE Manifold)
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	Nightly
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	10/23/2018	10/23/2018	10/23/2018	12/27/2018
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

Pollutant, POC	PM10, 2	PM10, 4	Lead, 3	Lead, 2
Primary / QA Collocated / Other	Primary	QA Collocated	QA Collocated	Primary
Parameter code	See Table 26	See Table 26	14129	14129
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	NATTS/NCore	NATTS/NCore	N/A	N/A
Instrument manufacturer and model	GMW 1200 SSI, A Sampler	GMW 1200 SSI, B Sampler	TSP, B Sampler, Tisch +	TSP, A Sampler, Tisch +
Method code	063	063	110	110
FRM/FEM/ARM/ other	FRM	FRM	FRM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	01/1985	01/2007	09/1979	09/1979
Current sampling frequency (e.g. 1:3, continuous)	1:6	6 per Year	1:6	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	6 per Year	1:12	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	11.7	11.7	11.3	11.3
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	27	27	27	27
Distance between collocated monitors (meters)	2	2	2	2
Unrestricted airflow (degrees)	360°	360°	360°	360°

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	Monthly	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/11/2018, 10/25/2018	05/11/2018, 10/25/2018	05/11/2018, 10/25/2018	05/11/2018, 10/25/2018

Pollutant, POC	Continuous PM10, PM Coarse, 9	Continuous PM2.5, PM Coarse, 9	Speciated PM2.5, 11	Speciated PM2.5, 12
Primary / QA Collocated / Other	Other	Other	Primary	QA Collocated
Parameter code	85101	88101	See Table 26	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Highest Concentration	Highest Concentration	Highest Concentration
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	NCore	NCore	N/A	N/A
Instrument manufacturer and model	Met One BAM 1020	Met One BAM 1020	Met One SASS, A Sampler	Met One SASS, B Sampler
Method code	122	170	See Table 26	See Table 26
FRM/FEM/ARM/ other	FEM	FEM	Other	Other
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD

Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	11/04/2010	03/08/2011	03/2001	03/2001
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:6	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	No CFR mandated sampling schedule.	No CFR mandated sampling schedule.
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	12.0	12.8	12.0	12.0
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	51	51	51	51
Distance between collocated monitors (meters)	4	4	2	2
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	No, unless the manual sampler has missing data.	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	Monthly	Monthly

Frequency of flow rate verification for automated PM analyzers	Monthly	Monthly	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	03/09/2018, 09/19/2018	03/09/2018, 09/19/2018	05/11/2018	05/11/2018

Pollutant, POC	24 Hour PM2.5, 1	24 Hour PM2.5, 2	24 Hour VOCs, 2	24 Hour VOCs, 1
Primary / QA Collocated / Other	Primary	QA Collocated	N/A	N/A
Parameter code	See Table 26	See Table 26	See Table 26	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Highest Concentration	Highest Concentration	Highest Concentration	Highest Concentration
Monitor (type)	SLAMS	SLAMS	Research Support	Research Support
Network Affiliation	N/A	N/A	NATTS	PAMS
Instrument manufacturer and model	Thermo 2025i PM2.5, A Sampler	Thermo 2025i PM2.5, B Sampler	Xontech 910A, A Sampler	Xontech 910A, B Sampler
Method code	118, 145	118, 145	See Table 26	See Table 26
FRM/FEM/ARM/ other	FRM	FRM	Other	Other
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	01/1999	01/1999	01/2007	01/2007
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:6	1:6	1:1 during Intensive PAMS Season
Calculated sampling frequency (e.g. 1:3/1:1)	1:3	1:6	No CFR mandated sampling schedule.	No CFR mandated sampling schedule.
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	07/01-09/30
Probe height (meters)	12.1	12.1	12.6	12.6
Distance from supporting structure (meters)	2.0	2.0	1.0	1.0

Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	52	52	52	52
Distance between collocated monitors (meters)	2	2	2	2
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	Stainless steel	Stainless steel
Residence time for reactive gases (seconds)	N/A	N/A	0.1	0.1
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	Yes	Yes	N/A	N/A
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	Semi Annually	Semi Annually
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	12/12/2017	12/12/2017
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/11/2018, 10/25/2018	05/11/2018, 10/25/2018	05/30/2018	05/30/2018

Pollutant, POC	Cr6, 4	Cr6, 5	Polycyclic Aromatic Hydrocarbons, 1	
Primary / QA Collocated / Other	Primary	QA Collocated	Primary	
Parameter code	See Table 26	See Table 26	See Table 26	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	NATTS	NATTS	NATTS	
Instrument manufacturer and model	RM Env. 924,A Sampler	RM Env. 924, B Sampler	Tisch PUF	
Method code	See Table 26	See Table 26	See Table 26	
FRM/FEM/ARM/ other	Other	Other	Other	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Reporting Agency	South Coast AQMD	South Coast AQMD	ERG North Carolina	
Spatial scale (e.g. micro, neighborhood)	Urban	Urban	Urban	
Monitoring start date (MM/DD/YYYY)	01/2007	01/2007	01/2007	
Current sampling frequency (e.g.1:3, continuous)	See Table 26	See Table 26	See Table 26	
Calculated sampling frequency (e.g. 1:3/1:1)	No CFR mandated sampling schedule.	No CFR mandated sampling schedule.	No CFR mandated sampling schedule.	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	12.18	12.18	12.18	
Distance from supporting structure (meters)	2.0	2.0	2.0	
Distance from obstructions on roof (meters)	N/A	N/A	Yes	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	52	52	52	
Distance between collocated monitors (meters)	2	2	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/30/2018	05/30/2018	N/A	

Pollutant, POC	Metals, Cr6, Carbonyls, N/A	24 Hour VOCs, N/A	Carbonyls, 2	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	N/A	N/A	See Table 26	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Highest Concentration	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	PAMS	
Instrument manufacturer and model	RM Env. 924	RM Env. 910PC	Atec 8000	
Method code	N/A	N/A	See Table 26	
FRM/FEM/ARM/ other	Other	Other	Other	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	

Analytical Lab (i.e., weigh lab, toxics lab, other)	ARB Toxics	ARB Toxics	South Coast AQMD	
Reporting Agency	ARB	ARB	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	01/1989	01/1989	06/01/2009	
Current sampling frequency (e.g. 1:3, continuous)	1:12	1:12	1:6 or 1:1 Intensive PAMS	
Calculated sampling frequency (e.g. 1:3/1:1)	No CFR mandated sampling schedule.	No CFR mandated sampling schedule.	No CFR mandated sampling schedule.	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	12.18	12.6	12.3	
Distance from supporting structure (meters)	2.0	2.3	2	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	52	52	52	
Distance between collocated monitors (meters)	2	2	N/A	
Unrestricted airflow (degrees)	360	360	360	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	Stainless steel	Stainless steel	
Residence time for reactive gases (seconds)	N/A	N/A	5.0	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	

Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	05/30/2018	

Pollutant, POC	PM2.5 Carbon, N/A	Speciated PM2.5, N/A	Speciated PM2.5, N/A	
Primary / QA Collocated / Other	Primary	Primary	QA Collocated	
Parameter code	N/A	N/A	N/A	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	STN	STN	STN /QA Collocated	
Instrument manufacturer and model	URG 3000, A Sampler	Met One SASS, A Sampler	Met One SASS, B Sampler	
Method code	N/A	N/A	N/A	
FRM/FEM/ARM/ other	Other	Other	Other	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	EPA STN	EPA STN	EPA STN	
Reporting Agency	EPA	EPA	EPA	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	03/07/2007	03/2001	03/2001	
Current sampling frequency (e.g.1:3, continuous)	1:3	1:3	1:6	
Calculated sampling frequency (e.g. 1:3/1:1)	1:3	1:3	1:3	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	12.3	12.0	12.0	
Distance from supporting structure (meters)	2.0	2.0	2.0	

Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	52	52	52	
Distance between collocated monitors (meters)	2	2	2	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	Monthly	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	05/30/2018	05/30/2018	

Pollutant, POC	Carbon Monoxide, 9	NOy, 9	UVR, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	42101	42612	63302	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Highest Concentration	Meteorological	
Monitor (type)	SLAMS	SLAMS	PAMS/NCORE/	
Network Affiliation	NCore	NCore		
Instrument manufacturer and model	Teledyne 300EU	Thermo 42i-Y	Eppley TUVB	
Method code	593	574	011	
FRM/FEM/ARM/ other	FRM	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Urban/ Neighborhood	
Monitoring start date (MM/DD/YYYY)	01/01/2011	01/01/2011	09/1979	
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	12.3	12.3	13.1	
Distance from supporting structure (meters)	2.0	2.0	2.6	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	45	45	45	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	
Residence time for reactive gases (seconds)	8.2	2.2	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	No	No	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	12/02/2016	12/01/2016	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	SR, 1
Primary / QA Collocated / Other	Primary	Primary	Primary	Primary
Parameter code	61101/61102	62201/62101	64101	63301
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure/ Highest Concentration	Population Exposure/ Highest Concentration	Population Exposure/ Highest Concentration	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	PAMS/NCORE	PAMS/NCORE	PAMS/NCORE	PAMS/NCORE
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Vaisala PTB110	Kipp & Zonen CMP6
Method code	065/065	063/061	015	011
FRM/FEM/ARM/ other	N/A	N/A	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD

Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Urban/ Neighborhood	Urban/ Neighborhood	Urban/ Neighborhood	Urban/ Neighborhood
Monitoring start date (MM/DD/YYYY)	09/1979	09/1979	09/1979	09/1979
Current sampling frequency (e.g.1:3, continuous)	Continuous	Continuous	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	18.0	13.1	12.1	13.1
Distance from supporting structure (meters)	7.2	2.6	1.5	2.6
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	50	45	45	45
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A

Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

**Los Angeles-North Main Street
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Los Angeles-North Main Street
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



Looking at the probe from the South.



Looking at the probe from the West.

**Los Angeles-North Main Street
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Los Angeles-North Main Street
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



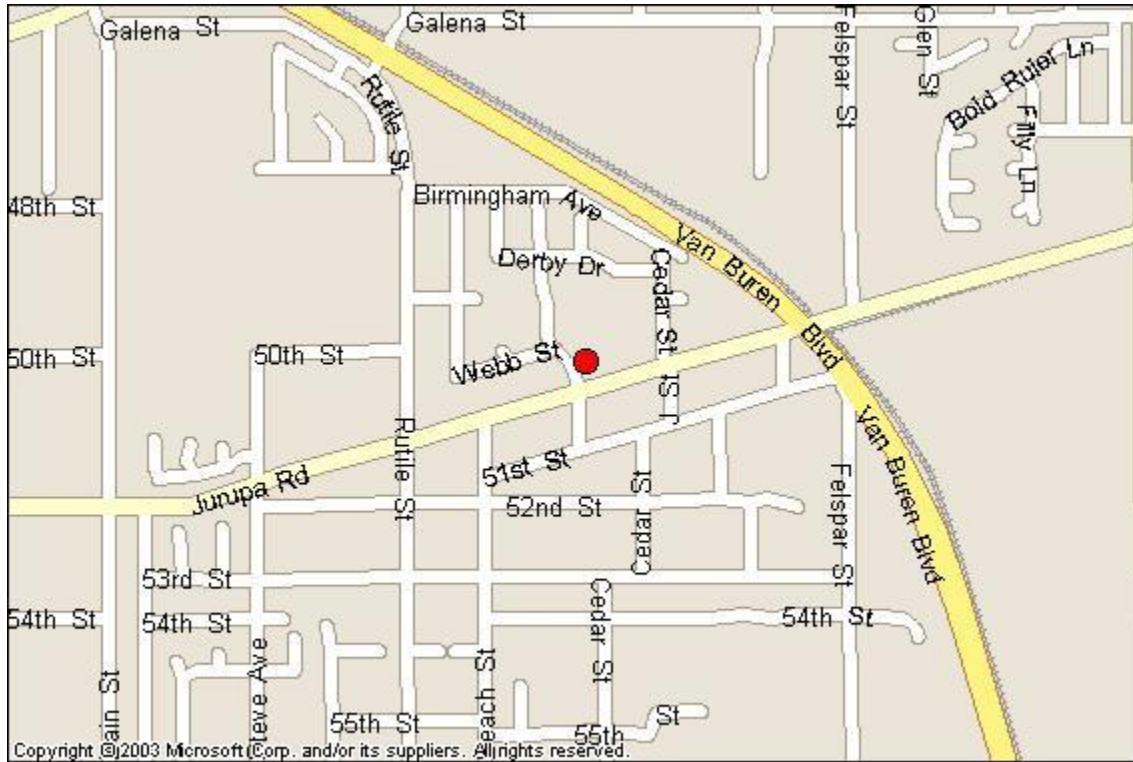
Looking at the probe from the South.



Looking at the probe from the West.

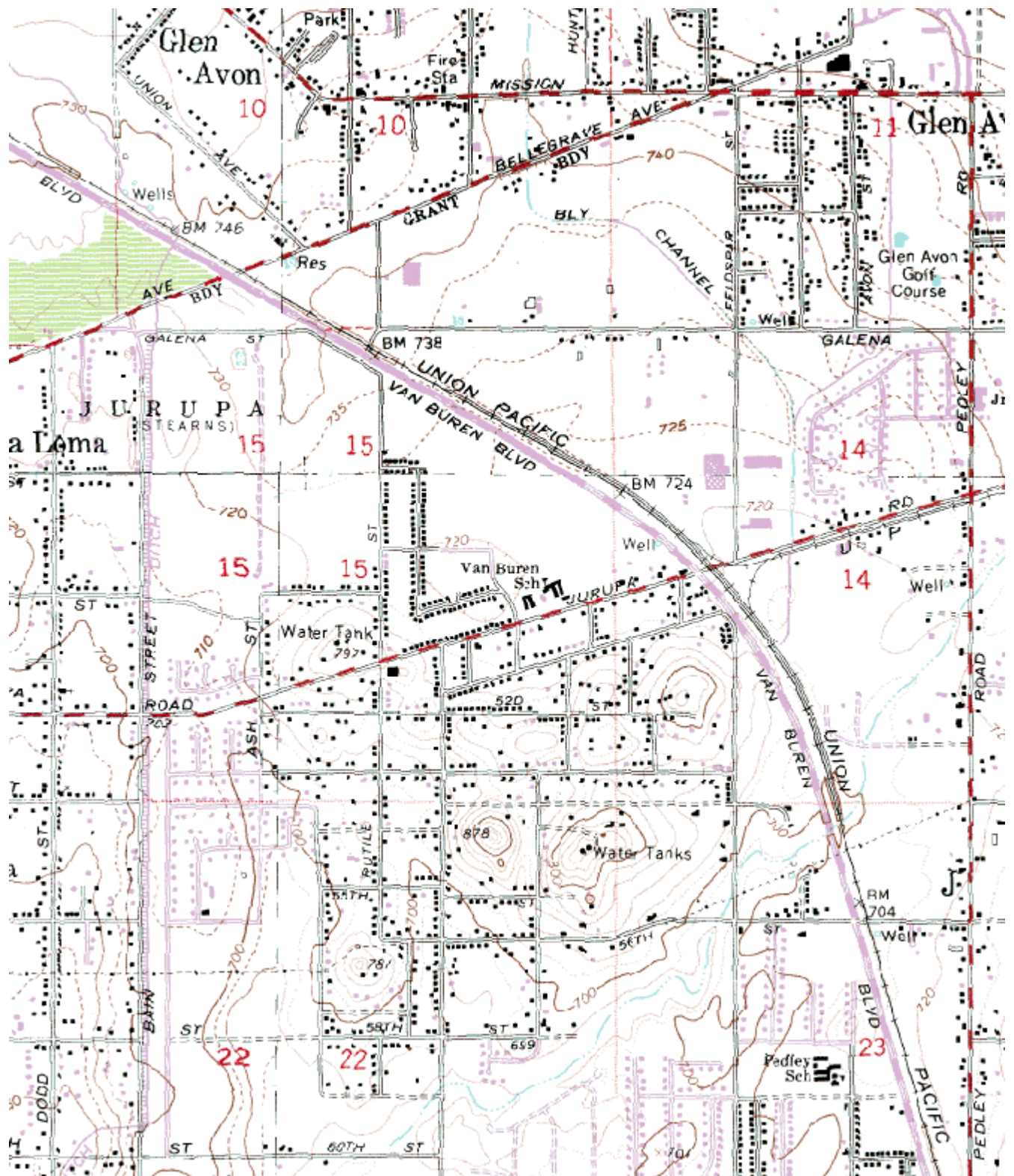
Quality Assurance
Site Survey Report for Mira Loma (Van Buren)

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060658005	33165	11/2005	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
5130 Poinsettia Pl Riverside, CA 92509	Riverside	South Coast	33° 59' 46"N	117° 29' 32"W	220



Detailed Site Information

Local site name	Mira Loma (Van Buren)			
AQS ID	060658005			
GPS coordinates (decimal degrees)	Latitude: 33° 59' 46" Longitude: 117° 29' 32"			
Street Address	5130 Poinsettia Place, Riverside CA			
County	Riverside			
Distance to roadways (meters)	14 – 15			
Traffic count (AADT, year)	< 1,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Gravel			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside, San Bernardino-Ontario, CA MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	PM10, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	Primary
Parameter code	42101	42602	44201	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Highest Concentration
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 360	Thermo 42i	API/Teledyne 400E	GMW 1200 SSI
Method code	106	074	087	063, 102
FRM/FEM/ARM/ other	FRM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	11/09/2005	11/09/2005	11/09/2005	11/09/2005
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.4	4.4	4.4	2.6
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	36	36	36	36
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	2
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	5.5	10.1	6.3	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	11/30/2018	11/30/2018	11/30/2018,	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	04/13/2018, 10/09/2018

Pollutant, POC	Continuous PM2.5, 3	24 Hour PM2.5, 1	Continuous PM10, 3	24 Hour PM2.5, 2
Primary / QA Collocated / Other	Other	Primary	Other	QA Collocated
Parameter code	88101	See Table 26	81102	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Highest Concentration	Highest Concentration	Highest Concentration	Highest Concentration
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Met One BAM 1020	Thermo 2025i PM2.5 A Sampler	Met One BAM 1020	Thermo 2025i PM2.5 B Sampler
Method code	170	118, 145	122	118, 145
FRM/FEM/ARM/ other	FEM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD	N/A	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	11/09/2005	12/07/2005	03/08/2010	03/01/2012
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:3	N/A	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.5	2.9	4.5	2.9
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	2	2	2	2
Unrestricted airflow (degrees)	360°	360°	360°	360°

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	No, unless the manual sampler has missing data.	Yes	No	Yes
Frequency of flow rate verification for manual PM samplers	N/A	Bi-Weekly	N/A	Bi-Weekly
Frequency of flow rate verification for automated PM analyzers	Monthly	N/A	Monthly	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	03/07/2018, 09/13/2018	04/13/2018, 10/09/2018	03/07/2018, 09/13/2018	04/13/2018, 10/09/2018

Pollutant, POC	PM10, 2	PM10, 4		
Primary / QA Collocated / Other	Primary	QA Collocated		
Parameter code	See Table 26	See Table 26		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Highest Concentration	Highest Concentration		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	N/A	N/A		
Instrument manufacturer and model	GMW 1200 SSI	GMW 1200 SSI		
Method code	063	063		
FRM/FEM/ARM/ other	FRM	FRM		
Collecting Agency	South Coast AQMD	South Coast AQMD		

Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood		
Monitoring start date (MM/DD/YYYY)	11/09/2005	07/01/2014		
Current sampling frequency (e.g.1:3)	1:6	1:6		
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	1:6		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	2.6	2.6		
Distance from supporting structure (meters)	2.0	2.0		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	36	36		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	2	2		
Unrestricted airflow (degrees)	360°	360°		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM _{2.5} ?	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		

Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors	04/13/2018, 10/09/2018	04/13/2018, 10/09/2018		

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Met One 091	
Method code	065/065	063/063	015	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	11/2005	11/2005	11/2005	
Current sampling frequency (e.g. 1:3)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	9.0	2.5	
Distance from supporting structure (meters)	10	9.0	.25	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	36	36	36	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ?	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors	N/A	N/A	N/A	

**Mira Loma (Van Buren)
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

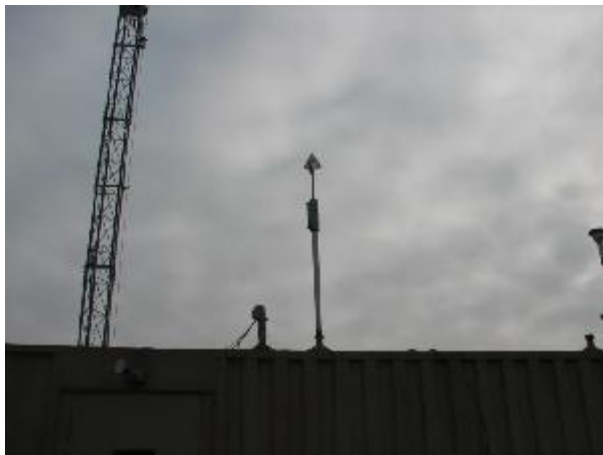
**Mira Loma (Van Buren)
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



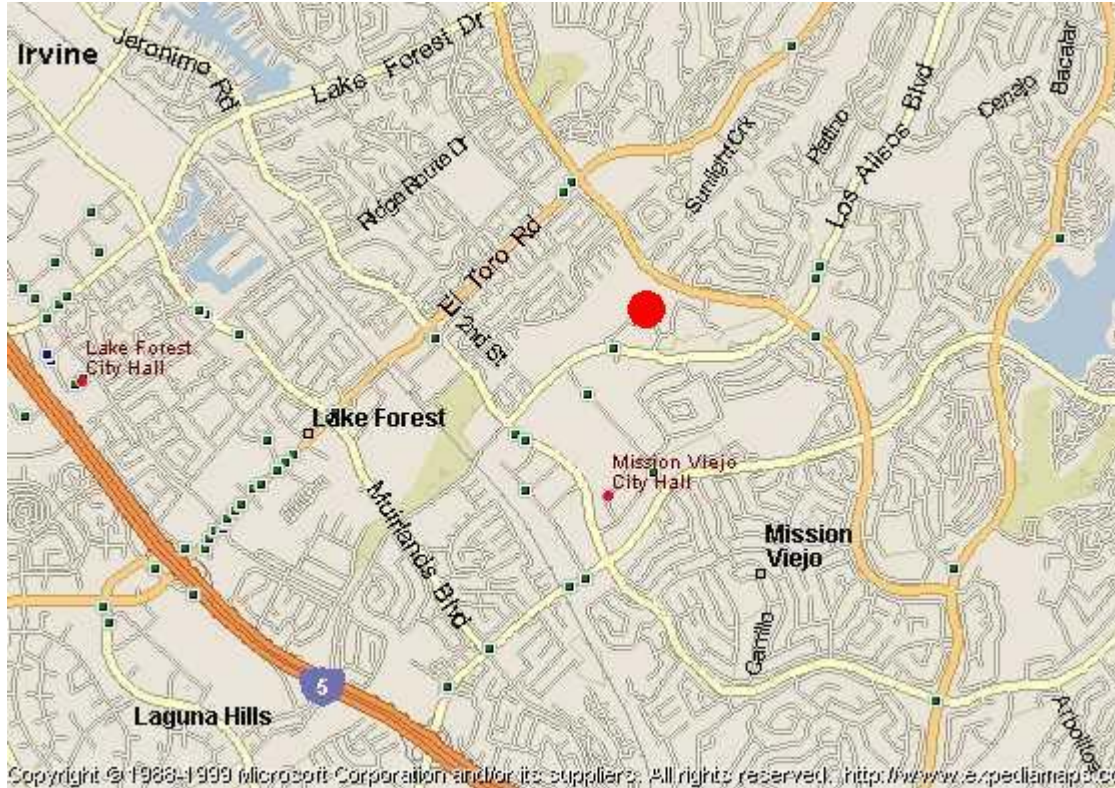
Looking at the probe from the South.



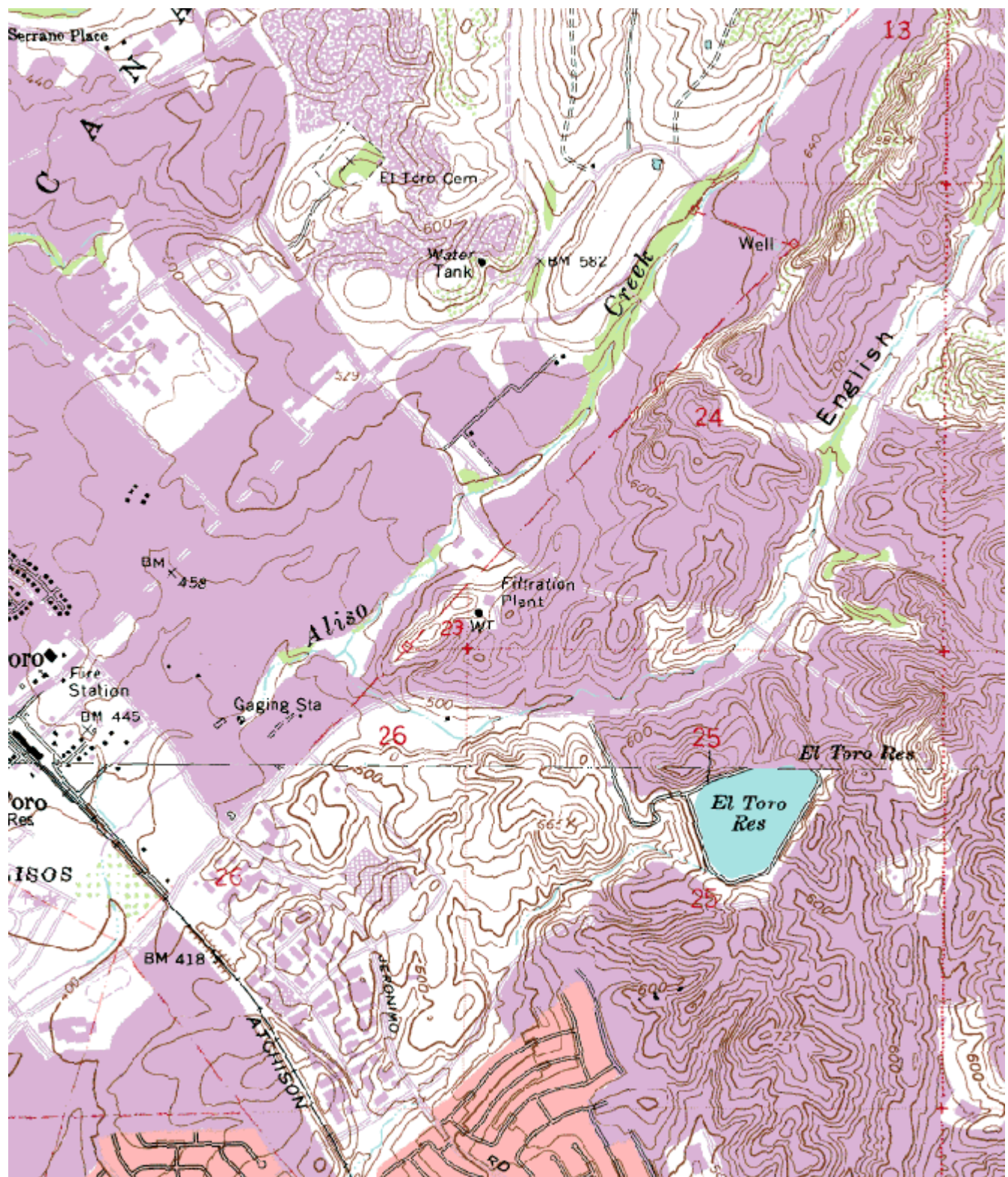
Looking at the probe from the West.

Quality Assurance Site Survey Report for Mission Viejo

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code			
060592022	30002	06/1999	South Coast AQMD (061)			
Site Address		County	Air Basin	Latitude	Longitude	Elevation
26081 Via Pera Mission Viejo, CA 92691		Orange	South Coast	33° 37' 48"N	117° 40' 32"W	168



Detailed Site Information

Local site name	Mission Viejo			
AQS ID	060592022			
GPS coordinates (decimal degrees)	Latitude: 33° 37' 48" Longitude: 117° 40' 32"			
Street Address	26081 Via Pera, Mission Viejo, CA 92691			
County	Orange			
Distance to roadways (meters)	138 - 175			
Traffic count (AADT, year)	< 2,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 1	Ozone, 1	PM10, 1	24 Hour PM2.5, 1
Primary / QA Collocated / Other	N/A	N/A	Primary	Primary
Parameter code	42101	44201	See Table 26	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 360	API/Teledyne 400E	Sierra Andersen 1200 SSI	Partisol 2025i
Method code	106	087	063	145
FRM/FEM/ARM/ other	FRM	FEM	FRM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	South Coast AQMD	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	06/15/1999	06/15/1999	06/15/1999	06/15/1999
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:6	1:3
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	SCAQMD	SCAQMD
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	6.7	6.7	3.4	3.8
Distance from supporting structure (meters)	2.4	2.4	2.4	2.9
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	4.8	4.8
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	270°	270°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	N/A
Residence time for reactive gases (seconds)	11.1	11.4	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	Yes
Frequency of flow rate verification for manual PM samplers	N/A	N/A	Monthly	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	06/06/2018	06/06/2018	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	05/03/2018, 10/10/2018	05/03/2018, 10/10/2018

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Met One 091	
Method code	065/065	061/061	015	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	06/2009	06/2009	06/2009	
Current sampling frequency (e.g.1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	9	3.5	
Distance from supporting structure (meters)	10	9	.25	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**Mission Viejo
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Mission Viejo
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



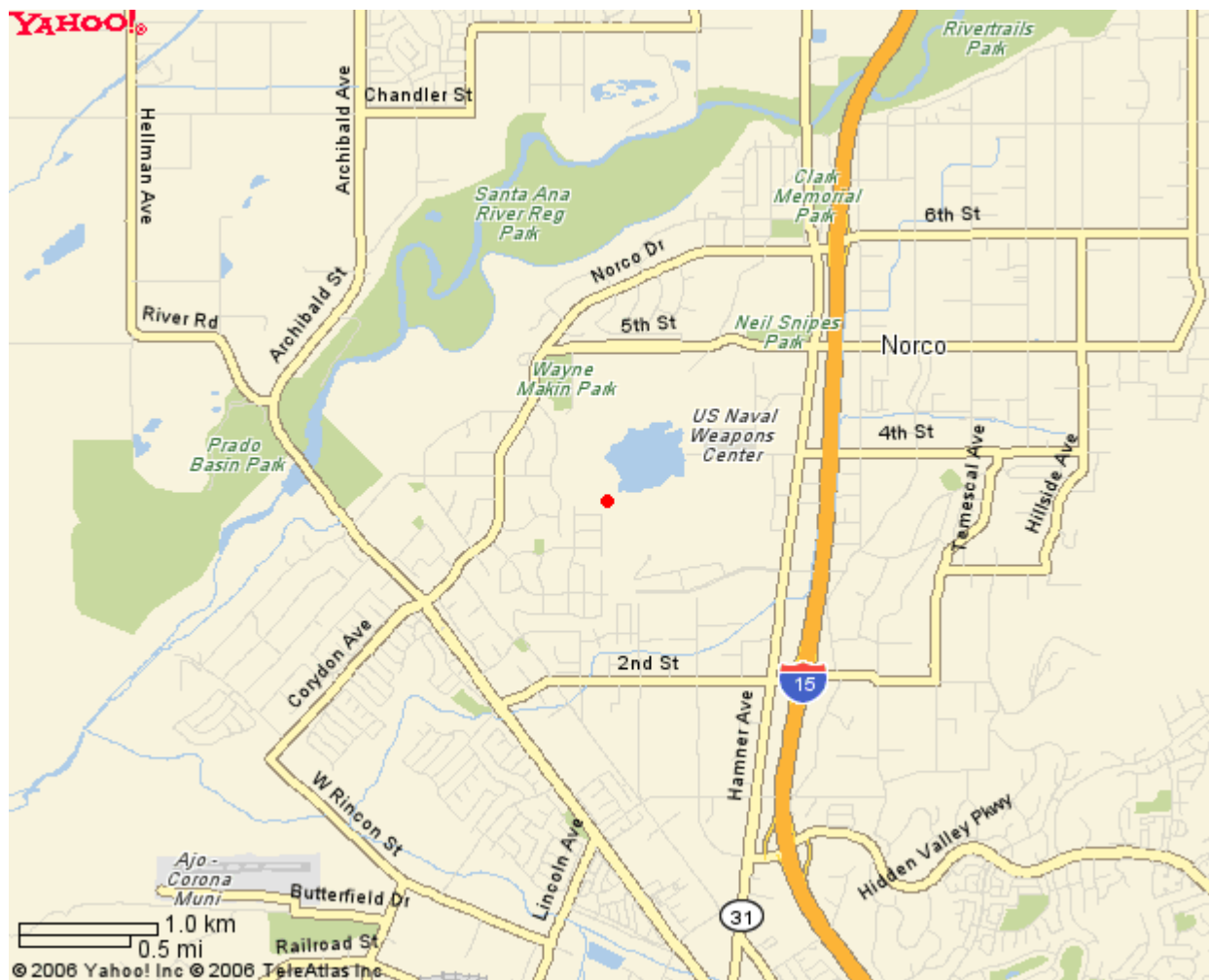
Looking at the probe from the South.



Looking at the probe from the West.

Quality Assurance Site Survey Report for Norco

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060650003	33155	12/1980	South Coast AQMD (061)

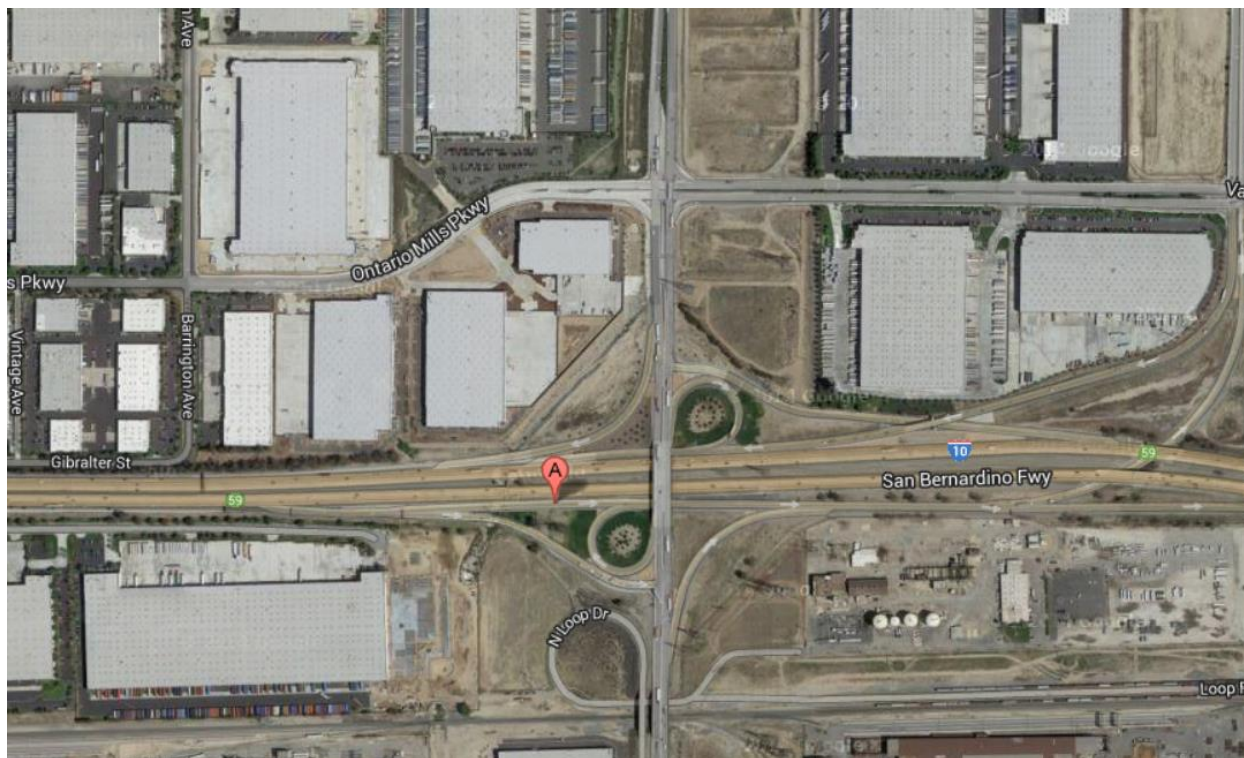
Site Address	County	Air Basin	Latitude	Longitude	Elevation
USNSWC Corona Division Norco, CA 92860	Riverside	South Coast	33° 55' 17"N	117° 34' 21"W	197

Detailed Site Information

Local site name	Norco			
AQS ID	06065003			
GPS coordinates (decimal degrees)	Latitude: 33° 55' 17" Longitude: 117° 34' 21"			
Street Address	USNSWC Corona Division, Norco, CA 92860			
County	Riverside			
Distance to roadways (meters)	25			
Traffic count (AADT, year)	< 500 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Weeds			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	PM10, 1			
Primary / QA Collocated / Other	Primary			
Parameter code	See Table 26			
Basic monitoring objective(s)	NAAQS			
Site type(s)	Population Exposure			
Monitor (type)	SLAMS			
Network Affiliation	N/A			
Instrument manufacturer and model	Sierra Andersen 1200 SSI			
Method code	063			
FRM/FEM/ARM/ other	FRM			
Collecting Agency	South Coast AQMD			
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD			
Reporting Agency	South Coast AQMD			
Spatial scale (e.g. micro, neighborhood)	Neighborhood			
Monitoring start date (MM/DD/YYYY)	12/1980			
Current sampling frequency (e.g. 1:3, continuous)	1:6			
Calculated sampling frequency (e.g. 1:3/1:1)	1:6			
Sampling season (MM/DD-MM/DD)	01/01-12/31			
Probe height (meters)	3.0			
Distance from supporting structure (meters)	2.0			
Distance from obstructions on roof (meters)	N/A			

Distance from obstructions not on roof (meters)	N/A			
Distance from trees (meters)	N/A			
Distance to furnace or incinerator flue (meters)	N/A			
Distance between collocated monitors (meters)	N/A			
Unrestricted airflow (degrees)	360°			
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A			
Residence time for reactive gases (seconds)	N/A			
Will there be changes within the next 18 months? (Y/N)	No			
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A			
Frequency of flow rate verification for manual PM samplers	Monthly			
Frequency of flow rate verification for automated PM analyzers	N/A			
Frequency of one-point QC check for gaseous instruments	N/A			
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A			
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	04/05/2018, 10/02/2018			

South Coast AQMD
Site Survey Report for Ontario Etiwanda-Near Road
Last updated: May, 2019



Site Address		County	Air Basin	Latitude	Longitude	Elevation
NW Corner Interstate 10 & Etiwanda Ontario, CA		San Bernardino	South Coast	34° 04' 04"N	117° 31' 33"W	300m
AIRS Number	ARB Number	Site Start Date	Reporting Agency and Agency Code			
060710026	36035	07/14	South Coast AQMD (061)			



Detailed Site Information

Local site name	Ontario Etiwanda – Near Road			
AQS ID	060710026			
GPS coordinates (decimal degrees)	Latitude: 34° 04' 04"N Longitude: 117° 31' 33"W			
Street Address	NW CORNER INTERSTATE 10 & ETIWANDA Ontario, CA			
County	San Bernardino			
Distance to roadways (meters)	49.0 meters			
Traffic count (AADT, year)	646804 (FEAADT)			
Groundcover (e.g. asphalt, dirt, sand)	Gravel, sand			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, MSA			
Pollutant, POC	Nitrogen Dioxide, 5	Carbon Monoxide, 1		
Primary / QA Collocated / Other	N/A	N/A		
Parameter code	42603	42101		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Population Exposure	Population Exposure		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	Near Road	Near Road		
Instrument manufacturer and model	Thermo 42i	Horiba APMA 370		
Method code	074	158		
FRM/FEM/ARM/ other	FRM	FRM		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Microscale	Microscale		
Monitoring start date (MM/DD/YYYY)	07/2014	12/2014		
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1		
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	4.2	4.5		
Distance from supporting structure (meters)	2.0	2.0		
Distance from obstructions on roof (meters)	N/A	N/A		

Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	N/A	N/A		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	N/A		
Unrestricted airflow (degrees)	360°	360°		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon		
Residence time for reactive gases (seconds)	6.8	6.8		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	11/28/2018	11/28/2018		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A		

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	

Monitor (type)	Near Road/SLAMS	Near Road/SLAMS	Near Road/SLAMS	
Network affiliation	Near Road	Near Road	Near Road	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Met One 091	
Method code	065/065	063/063	014	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Micro	Micro	Micro	
Monitoring start date (MM/DD/YYYY)	07/2014	07/2014	07/2014	
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	9.0	2.5	
Distance from supporting structure (meters)	10	9.0	.25	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	

Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**Ontario Etiwanda-Near Road
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Ontario Etiwanda-Near Road
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



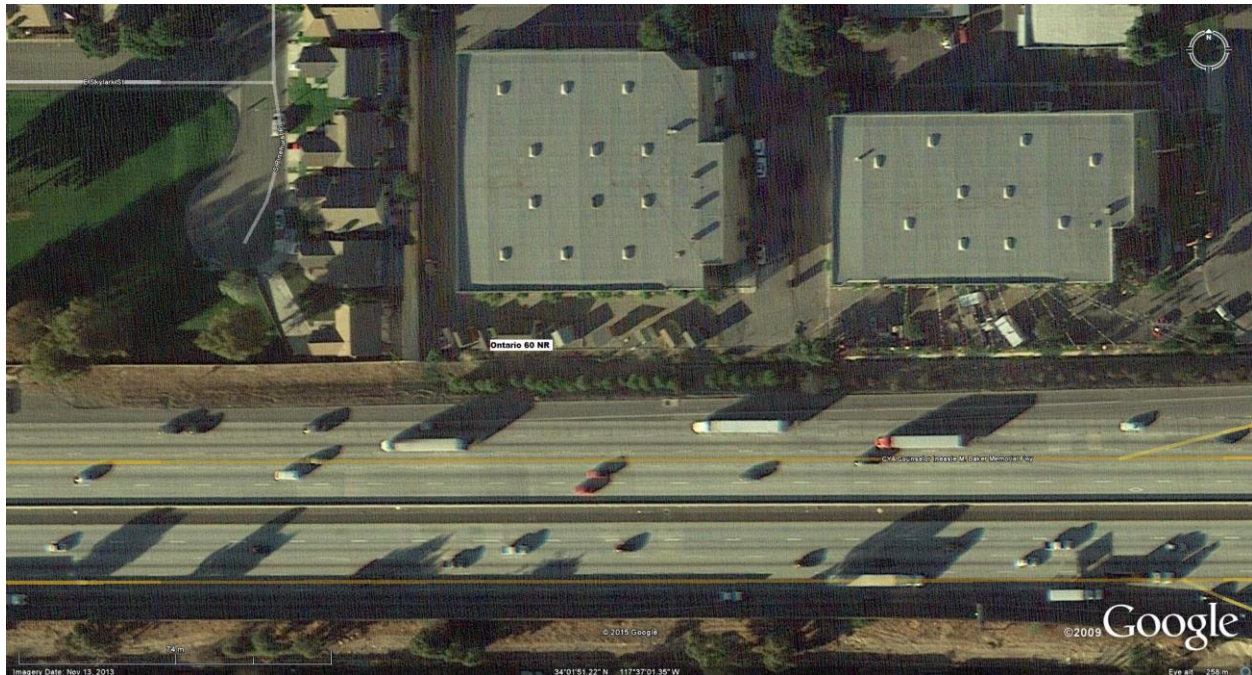
Looking at the probe from the South.



Looking at the probe from the West.

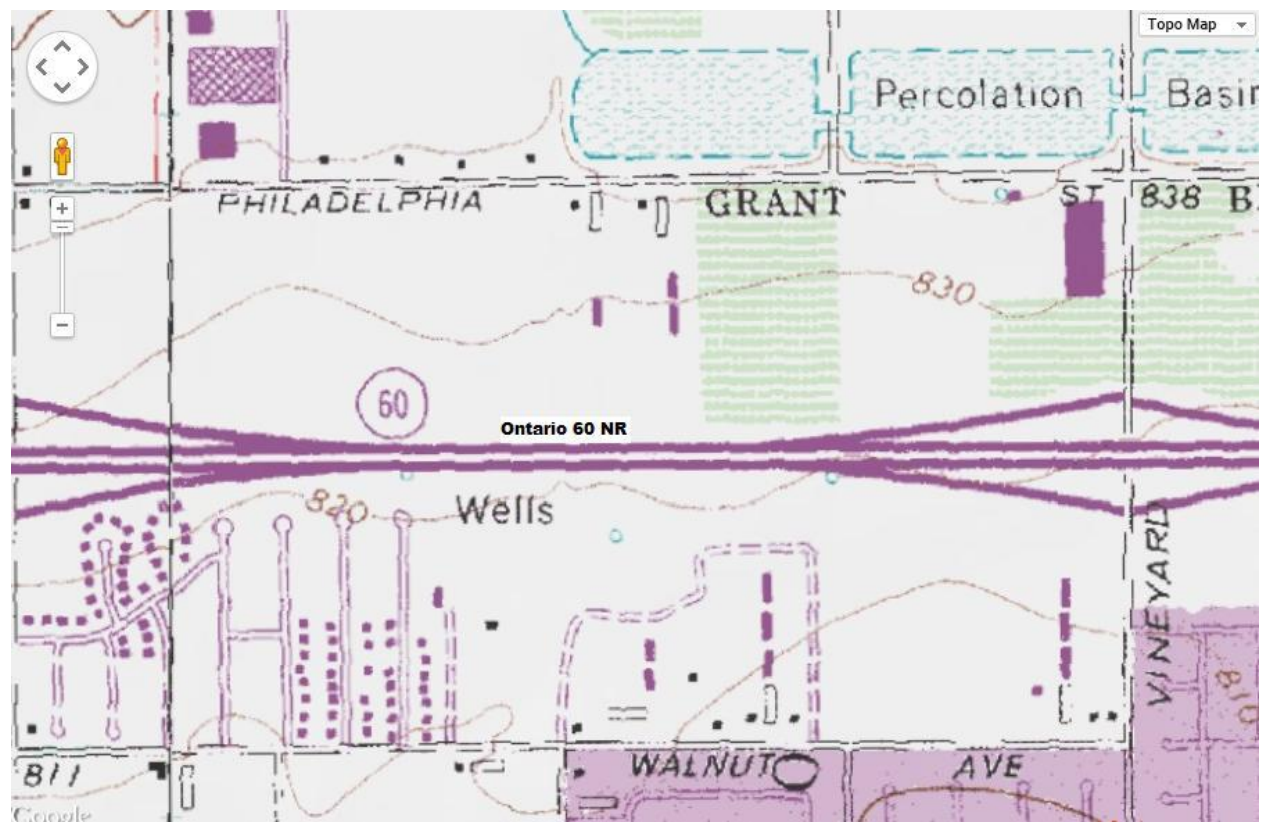
Quality Assurance Site Survey Report for Ontario-Route 60 Near Road

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060710027	36036	1/1/2015	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
2330 S. Castle Harbour	San Bernardino	South Coast	34° 01' 51" N	117° 37' 02" N	258m



Detailed Site Information

Local site name	Ontario-Route 60 Near Road			
AQS ID	060710027			
GPS coordinates (decimal degrees)	Latitude: 34° 01' 51" N Longitude: 117° 37' 02" N			
Street Address	2330 S. Castle Harbour Ontario, CA 91761			
County	San Bernardino			
Distance to roadways (meters)	10 m			
Traffic count (AADT, year)	215,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Gravel/Grass			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Nitrogen Dioxide, 1	24 Hour PM2.5, 1	Continuous PM2.5, 3	
Primary / QA Collocated / Other	N/A	Primary	Other	
Parameter code	42602	See Table 26	88101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	Near Road	Near Road	Near Road	
Instrument manufacturer and model	Horiba APNA 370 NOx	Thermo 2025i	Thermo 5014	
Method code	157	118,145	183	
FRM/FEM/ARM/ other	FRM	FRM	FEM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Micro	Micro	Micro	
Monitoring start date (MM/DD/YYYY)	01/2015	1/2015	1/2015	
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	4.5	4.5	4.5	
Distance from supporting structure (meters)	2.0	2.0	2.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	NA	NA	
Residence time for reactive gases (seconds)	9.8	NA	NA	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	Yes	Yes	
Frequency of flow rate verification for manual PM samplers	N/A	Monthly	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	Monthly	
Frequency of one-point QC check for gaseous instruments	Nightly	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	11/27/2018	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	04/04/2018, 10/04/2018	03/14/2018, 09/14/2018	

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	Near Road/SLAMS	Near Road/SLAMS	Near Road/SLAMS	
Network affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Met One 091	
Method code	065/065	061/061	015	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Micro	Micro	Micro	
Monitoring start date (MM/DD/YYYY)	01/2015	01/2015	01/2015	
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	3.5	3.5	
Distance from supporting structure (meters)	10	1.0	1.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**Ontario-Route 60 Near Road
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Ontario-Route 60 Near Road
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



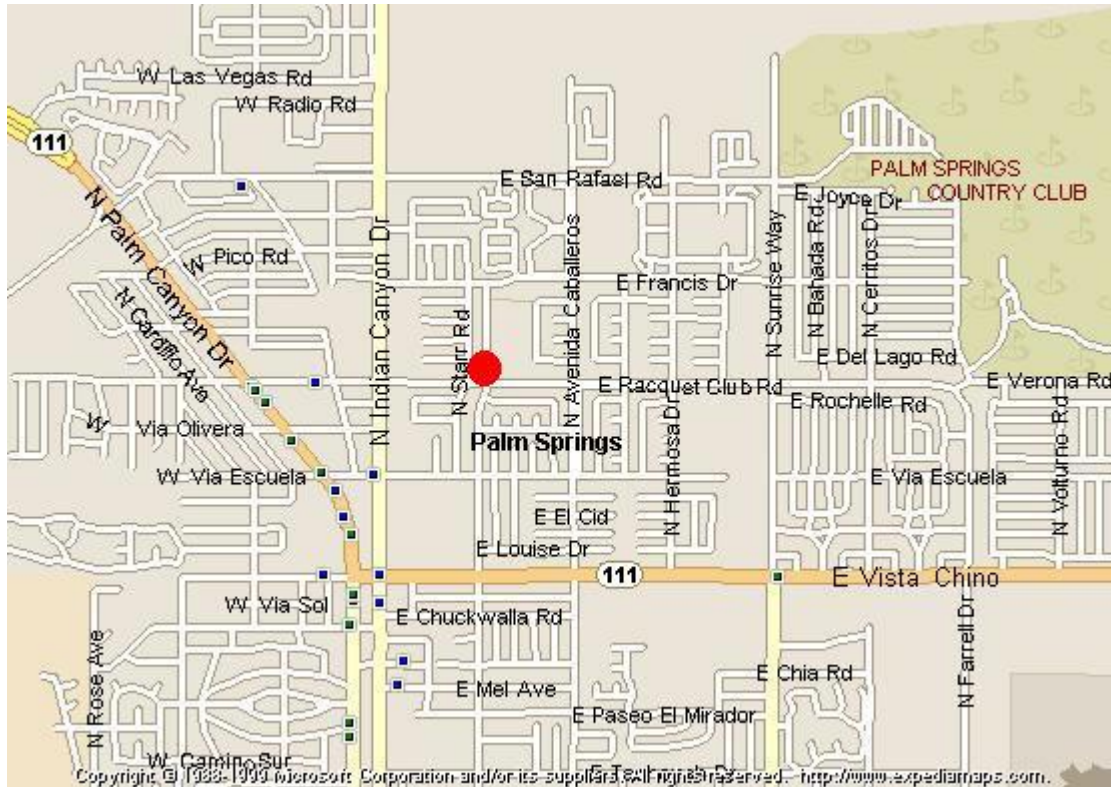
Looking at the probe from the South.



Looking at the probe from the West.

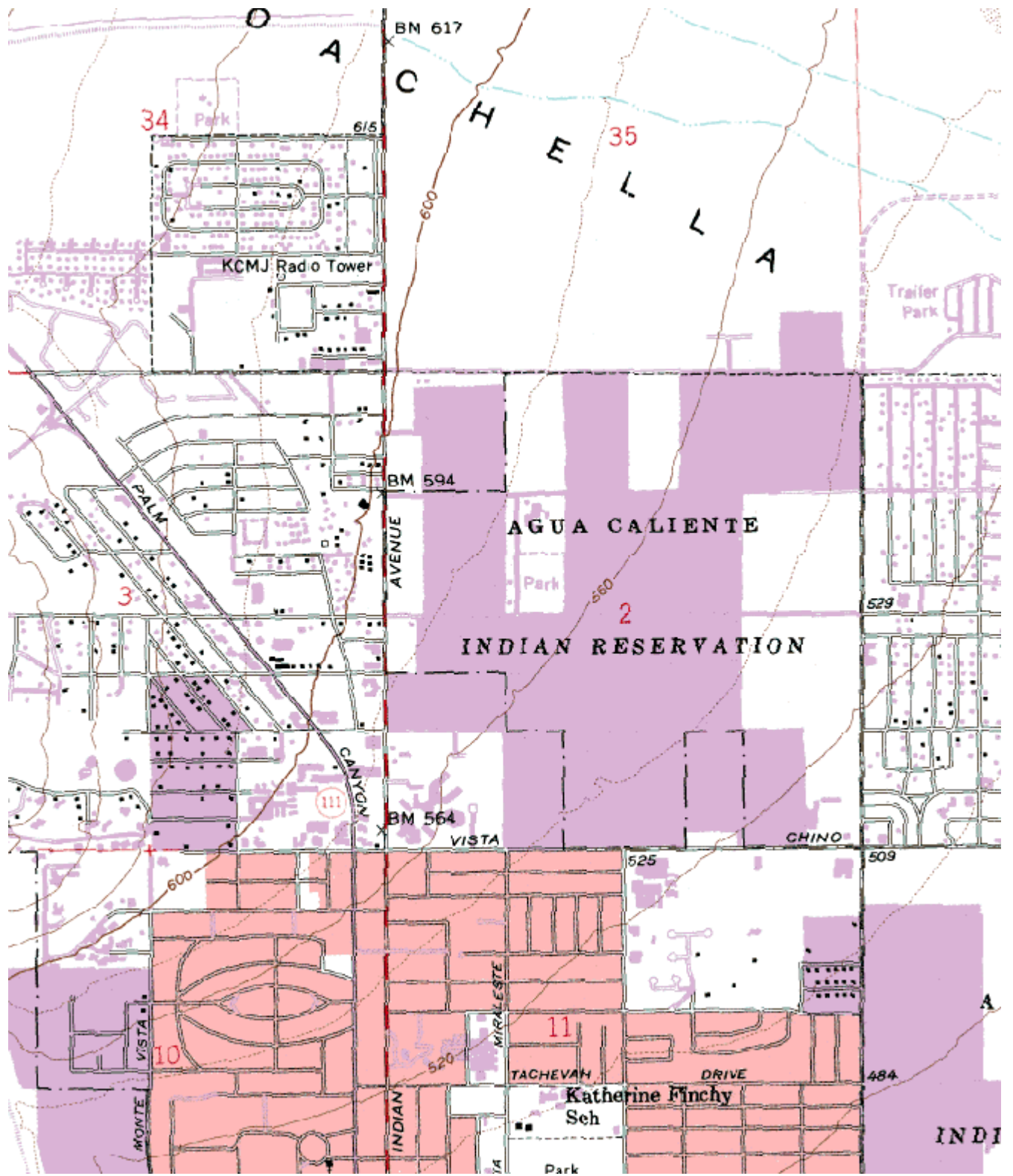
Quality Assurance Site Survey Report for Palm Springs-Fire Station

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060655001	33137	04/1971	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
590 E Racquet Club Ave Palm Springs, CA 92262	Riverside	Salton Sea	33° 51' 09"N	116° 32' 27"W	172 m



Detailed Site Information

Local site name	Palm Springs-Fire Station			
AQS ID	060655001			
GPS coordinates (decimal degrees)	Latitude: 33° 51' 09" Longitude: 116° 32' 27"			
Street Address	590 East Racquet Club Ave., Palm Springs, CA 92262			
County	Riverside			
Distance to roadways (meters)	13 - 17			
Traffic count (AADT, year)	5,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Concrete			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 2	Ozone, 1	PM10, 2
Primary / QA Collocated / Other	N/A	N/A	N/A	Primary
Parameter code	42101	42602	44201	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 360	Thermo 42i	API/Teledyne 400E	Sierra Andersen 1200 SSI
Method code	106	074	087	063
FRM/FEM/ARM/ other	FRM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	04/1971	04/1971	04/1971	01/1985
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	5.0	5.0	5.0	3.46
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	22	22	22	19
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	2.1
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	7.3	13.0	7.9	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	12/13/2018	12/13/2018	12/13/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	04/18/2018, 10/03/2018

Pollutant, POC	Continuous PM10, 3	24 Hour PM2.5, 1		
Primary / QA Collocated / Other	Other	Primary		
Parameter code	81102	See Table 26		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Population Exposure	Population Exposure		
Monitor (type)	SLAMS	SLAMS		
Network affiliation	N/A	N/A		
Instrument manufacturer and model	Thermo Electron 1400A TEOM	Partisol 2025i		
Method code	079	145		
FRM/FEM/ARM/ other	FEM	FRM		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood		
Monitoring start date (MM/DD/YYYY)	06/02/2009	12/26/1999		
Current sampling frequency (e.g.1:3, continuous)	1:1	1:3		
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:3		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	4.7	2.9		
Distance from supporting structure (meters)	1.7	1.9		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	19	19		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	2.1	N/A		
Unrestricted airflow (degrees)	360°	360°		

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	Yes		
Frequency of flow rate verification for manual PM samplers	N/A	Monthly		
Frequency of flow rate verification for automated PM analyzers	Monthly	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	03/01/2018, 09/05/2018	04/18/2018, 10/03/2018		

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Met One 091	
Method code	065/065	061/061	015	
FRM/FEM/ARM/ other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	

Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	04/1971	04/1971	04/1971	
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	7.87	6.07	2.61	
Distance from supporting structure (meters)	22	22	22	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	22	22	22	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	

Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**Palm Springs-Fire Station
Site Photos**



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.



Looking North from the probe.

**Palm Springs-Fire Station
Site Photos (Cont.)**



Looking at the probe from the East.



Looking at the probe from the South.



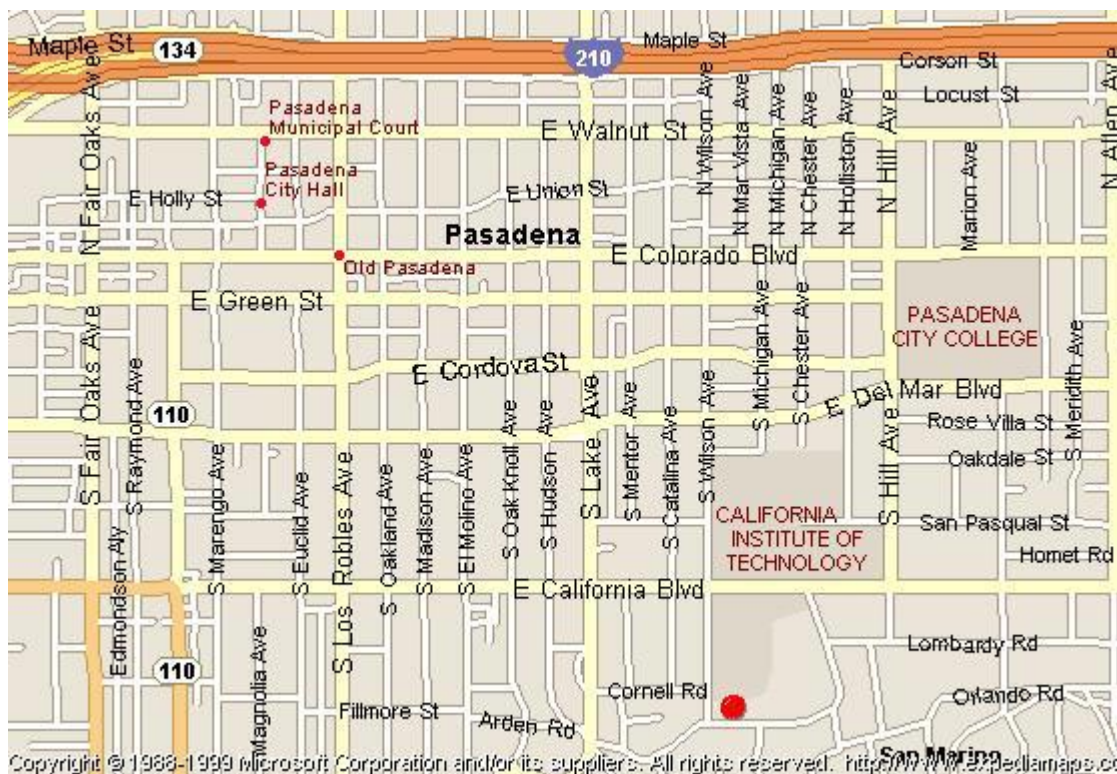
Looking at the probe from the West.



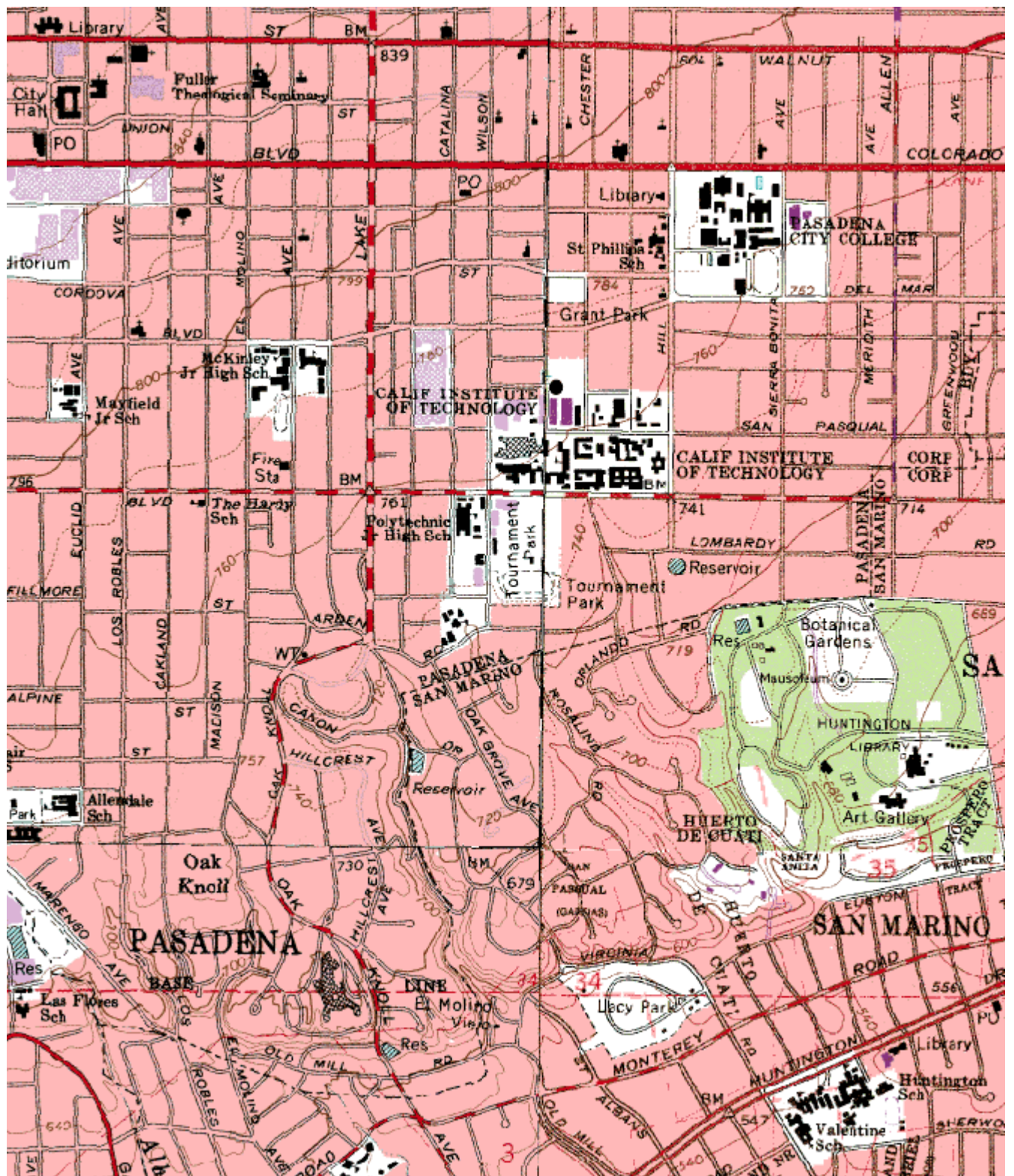
Looking at the probe from the North.

Quality Assurance Site Survey Report for Pasadena

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code		
060372005	70088	04/1982	South Coast AQMD (061)		
Site Address	County	Air Basin	Latitude	Longitude	Elevation
752 S Wilson Ave Pasadena, CA 91702	Los Angeles	South Coast	34° 07' 57"N	118° 07' 37"W	226



Detailed Site Information

Local site name	Pasadena			
AQS ID	060372005			
GPS coordinates (decimal degrees)	Latitude: 34° 07' 57" Longitude: 118° 07' 37"			
Street Address	752 S Wilson Ave, Pasadena, CA 91702			
County	Los Angeles			
Distance to roadways (meters)	66			
Traffic count (AADT, year)	< 5,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Grass			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim, MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	24 Hour PM2.5, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	Primary
Parameter code	42101	42602	44201	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Highest Concentration	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	Teledyne 400E	Andersen RAAS PM2.5
Method code	158	074	087	155
FRM/FEM/ARM/ other	FRM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Middle	Middle	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	04/1982	04/1982	04/1982	04/1982
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	1:3
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	1:3
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	5.0	5.0	5.0	2.8
Distance from supporting structure (meters)	2.1	2.1	2.1	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	13	13	13	13
Distance from trees (meters)	6	6	6	6
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	8.3	14.4	8.9	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	Yes
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	08/22/2018	08/22/2018	08/22/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	04/24/2018, 10/16/2018

Pollutant, POC	24 Hour PM2.5, 2	WS & D, 1/1	RH/T, 1/1	
Primary / QA Collocated / Other	QA Collocated	N/A	N/A	
Parameter code	See Table 26	61101/61102	62201/62101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Andersen RAAS PM2.5	RM Young 05305	Rotronic HC2-S3	
Method code	155	065/065	061/061	
FRM/FEM/ARM/ other	FRM	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood/Middle	Neighborhood/Middle	
Monitoring start date (MM/DD/YYYY)	05/01/2017	04/1982	04/1982	
Current sampling frequency (e.g. 1:3, continuous)	1:3	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:3	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	2.8	10	3.5	
Distance from supporting structure (meters)	1.9	10	1	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	13	N/A	N/A	
Distance from trees (meters)	6	6	6	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	

Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	Yes	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	Monthly	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	04/24/2018, 10/16/2018	N/A	N/A	

**Pasadena
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Pasadena
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



Looking at the probe from the South.



Looking at the probe from the West.

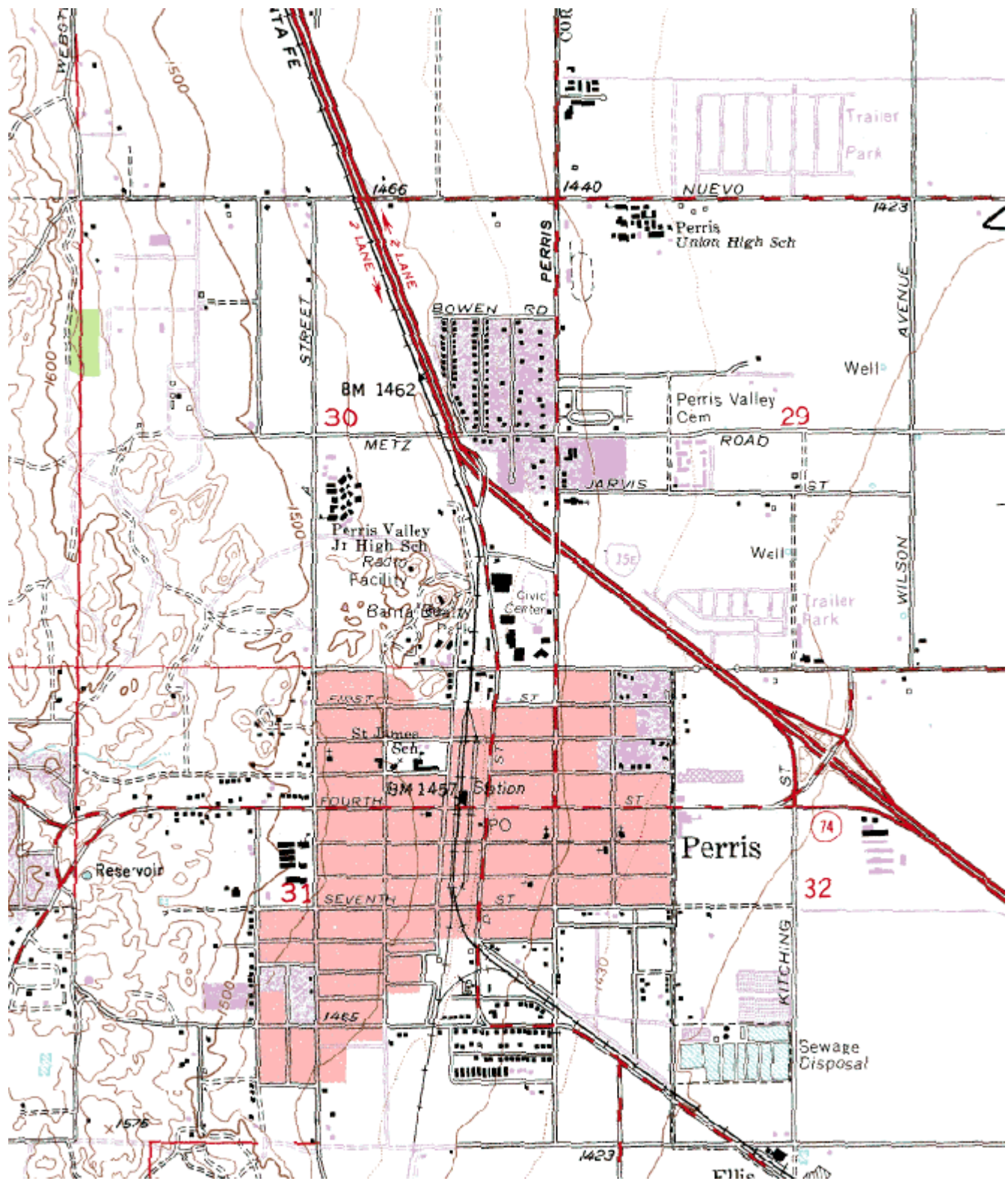
Quality Assurance Site Survey Report for Perris

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060656001	33149	05/1973	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
237 1/2 N D St Perris, CA 92570	Riverside	South Coast	33° 47' 20"N	117° 13' 40"W	442 m



Detailed Site Information

Local site name	Perris			
AQS ID	060656001			
GPS coordinates (decimal degrees)	Latitude: 33° 47' 20" Longitude: 117° 13' 40"			
Street Address	237 ½ N D St, Perris, CA 92570			
County	Riverside			
Distance to roadways (meters)	74; 173m			
Traffic count (AADT, year)	39,500 / 2012; 215/D St., 99,000 / 2011			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Ozone, 1	PM10, 1	WS & D, 1/1	RH/T, 1/1
Primary / QA Collocated / Other	N/A	Primary	N/A	N/A
Parameter code	44201	See Table 26	61101/61102	62201/62101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Meteorological	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Thermo 49i	Sierra Andersen 1200 SSI	RM Young 05305	Rotronic HC2-S3
Method code	047	063/102	065/065	061/061
FRM/FEM/ARM/ other	FEM	FRM	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	05/01/1973	05/01/1973	05/1973	05/1973
Current sampling frequency (e.g.1:3, continuous)	1:1	1:6	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:6	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	3.5	3.5		
Distance from supporting structure (meters)	1.8	2.0		
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A	N/A
Residence time for reactive gases (seconds)	8.2	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	Monthly	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	08/16/2018	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	04/05/2018, 10/02/2018	N/A	N/A

**Perris
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Perris
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.

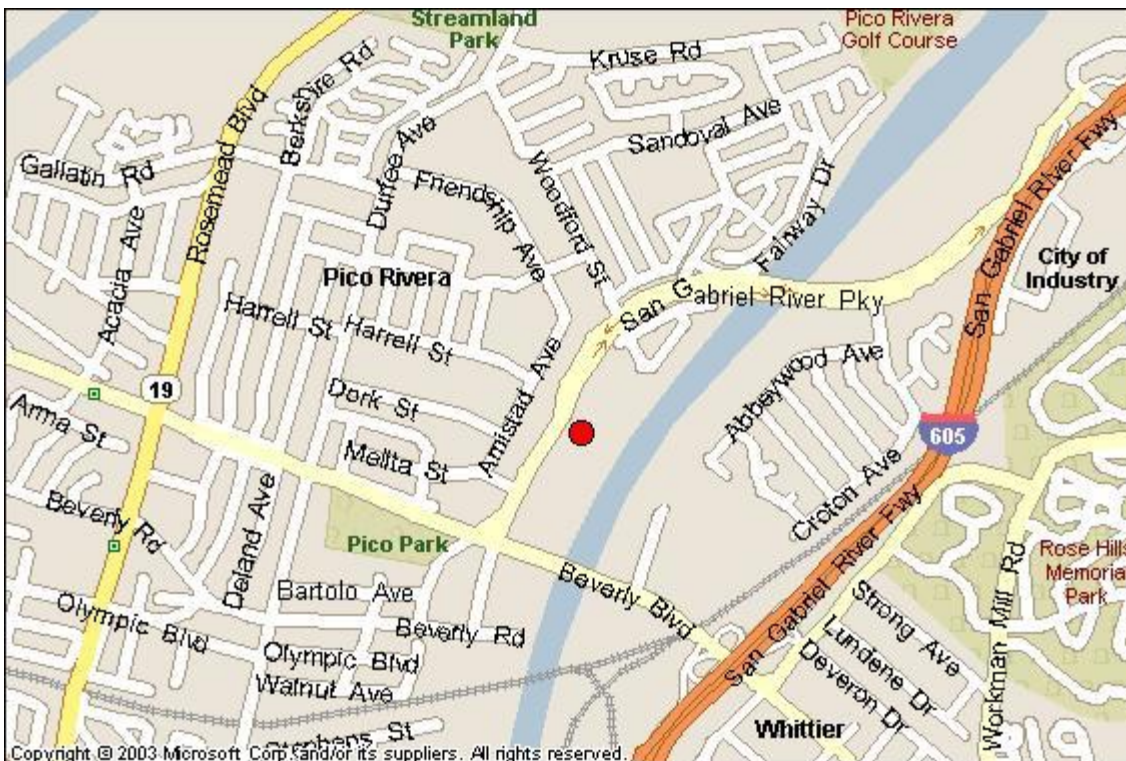


Looking at the probe from the South.



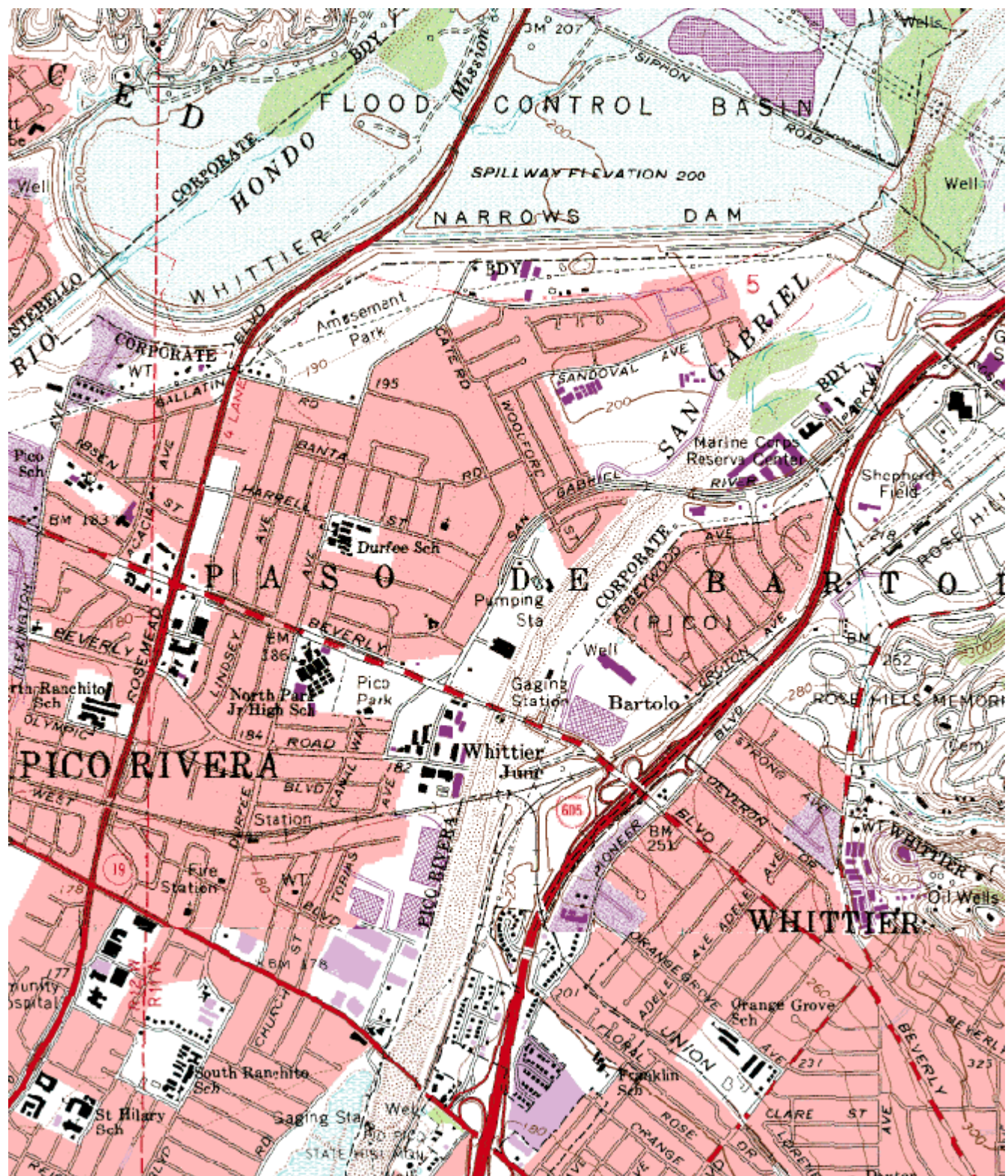
Looking at the probe from the West.

Quality Assurance **Site Survey Report for Pico Rivera #2** *Last updated: May, 2019*



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060371602	70185	09/2005	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
4144 San Gabriel River Pkwy Pico Rivera, CA 90660	Los Angeles	South Coast	34° 0' 37"N	118° 04' 07"W	58 m



Detailed Site Information

Local site name	Pico Rivera #2			
AQS ID	060371602			
GPS coordinates (decimal degrees)	Latitude: 34° 0' 37" Longitude: 118° 04' 07"			
Street Address	4144 San Gabriel River Pkwy, Pico Rivera, CA			
County	Los Angeles			
Distance to roadways (meters)	35 – 41; 765			
Traffic count (AADT, year)	20,000 / 2012; 605/Beverly, 255,000 2011			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles, Long Beach-Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	Lead, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	Primary
Parameter code	42101	42602	44201	14129
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	Thermo 49i	GMW TSP 1200
Method code	158	074	087	110
FRM/FEM/ARM/ other	FRM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	9/2005	9/2005	09/2005	09/2005
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.5	4.5	4.5	3.11
Distance from supporting structure (meters)	1.8	1.8	1.8	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	9	9	9	4
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	7.8	13.3	10.1	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	06/14/2018	06/14/2018	06/14/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	05/10/2018, 10/18/2018

Pollutant, POC	24 Hour PM2.5, 1	24 Hour PM2.5, 2	24 Hour PM2.5, 2	
Primary / QA Collocated / Other	Primary	Composite	Collocated	
Parameter code	See Table 26	See Table 26	See Table 26	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	

Site type(s)	Population Exposure,	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Partisol 2000i	Partisol 2000i	Partisol 2000i	
Method code	120	120	120	
FRM/FEM/ARM/other	FRM	FRM	Collocated	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	09/2005	05/01/2017	05/01/17	
Current sampling frequency (e.g. 1:3, continuous)	1:6	1:6	1:6	
Calculated sampling frequency (e.g. 1:3/1:1)	1:3	1:3	1:6	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	2.84	2.84	2.84	
Distance from supporting structure (meters)	2.0	2.0	2.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	4	4	4	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	

Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	Yes	Yes	Yes	
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	Monthly	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/10/2018, 10/18/2018	05/10/2018, 10/18/2018	05/10/2018, 10/18/2018	

Pollutant, POC	WS & D, 1/1	RH/T, 1/1	BP, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	61101/61102	62201/62101	64101	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Meteorological	Meteorological	Meteorological	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network Affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3	Met One 091	
Method code	065/065	061/061	015	
FRM/FEM/ARM/other	N/A	N/A	N/A	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	

Monitoring start date (MM/DD/YYYY)	09/2005	09/2005	09/2005	
Current sampling frequency (e.g. 1:3, continuous)	Continuous	Continuous	Continuous	
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	10	9.0	3	
Distance from supporting structure (meters)	10	9.0	.5	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	35	35	35	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	9	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	270°	270°	270°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	

Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

**Pico Rivera #2
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Pico Rivera #2
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



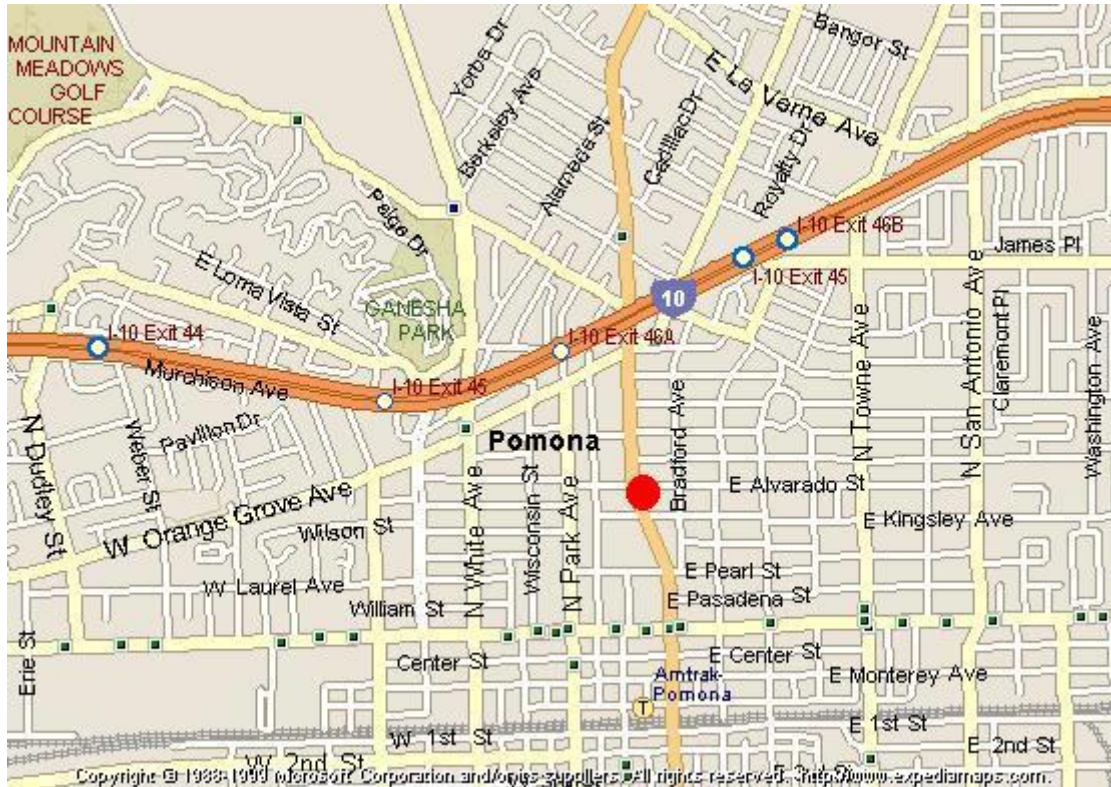
Looking at the probe from the South.



Looking at the probe from the West.

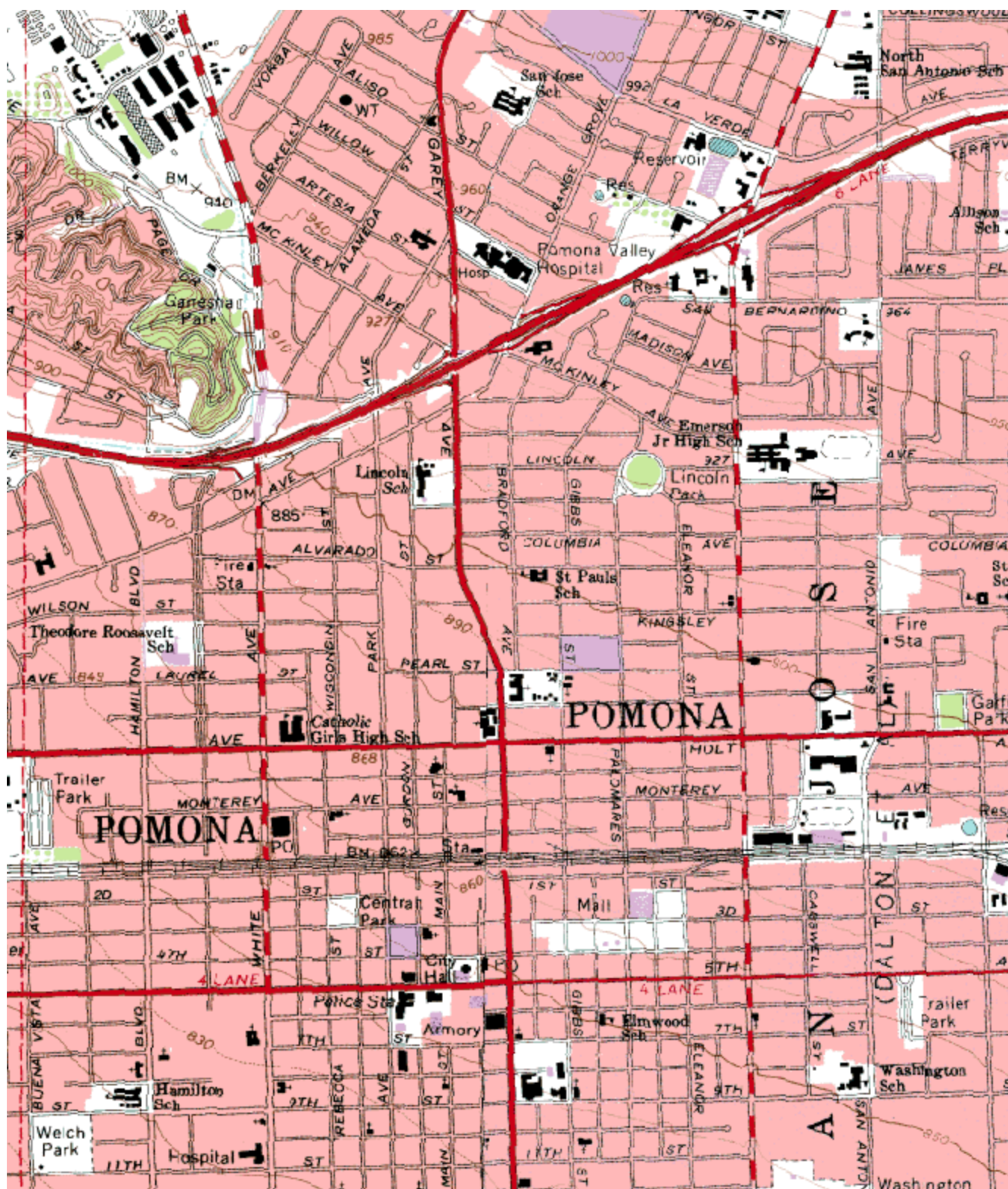
Quality Assurance Site Survey Report for Pomona

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060371701	70075	06/1965	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
924 N. Garey Ave Pomona, CA 91767	Los Angeles	South Coast	34° 04' 01"N	117° 45' 05"W	279 m



Detailed Site Information

Local site name	Pomona			
AQS ID	060371701			
GPS coordinates (decimal degrees)	Latitude: 34° 04' 01" Longitude: 117° 45' 05"			
Street Address	924 N. Garey Ave, Pomona, CA 91767			
County	Los Angeles			
Distance to roadways (meters)	7			
Traffic count (AADT, year)	25,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 2	Ozone, 1	WS & D, 1/1
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Parameter code	42101	42602	44201	61101/61102
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Highest Concentration	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 360	API/Teledyne 200E	API/Teledyne 400E	RM Young 05305
Method code	106	099	087	065/065
FRM/FEM/ARM/ other	FRM	FRM	FEM	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Micro	Middle	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	06/1965	06/1965	06/1965	06/1965
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	7.0	8.2	7.4	14.7
Distance from supporting structure (meters)	2.4	2.4	2.4	2.3
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	7.0
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	6.8	7.9	7.2	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	03/30/2018	03/30/2018	03/30/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

**Pomona
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Pomona
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



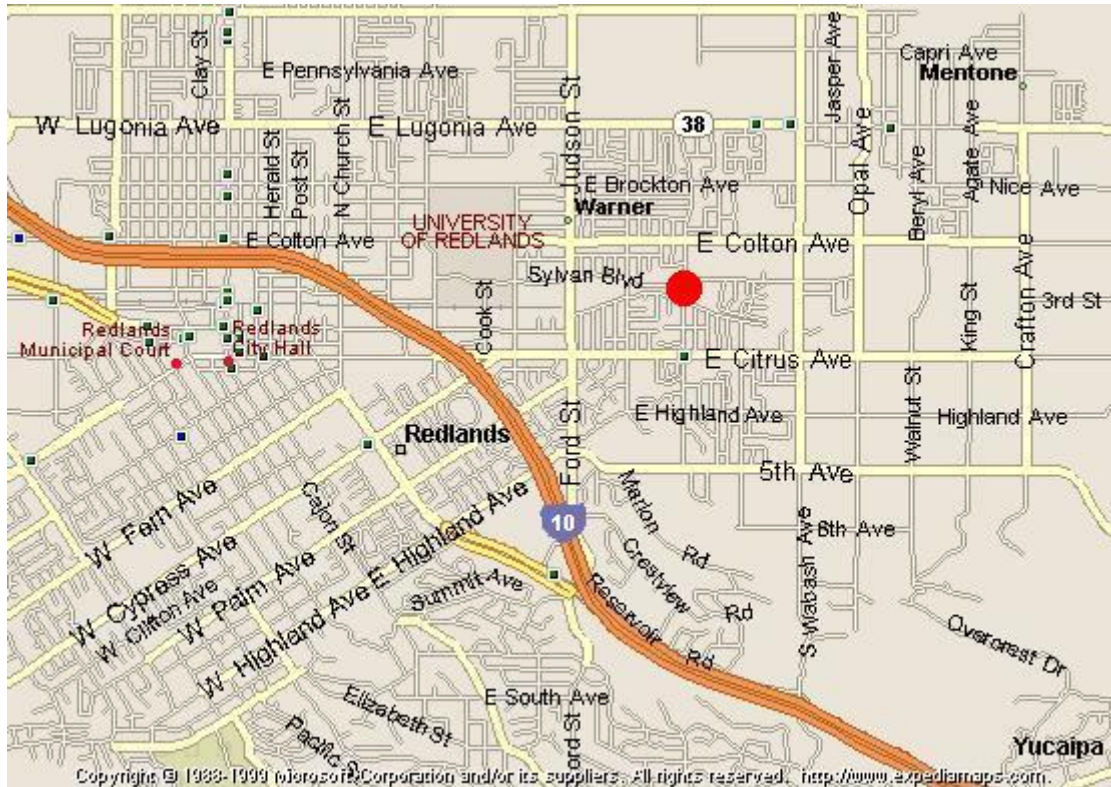
Looking at the probe from the South.



Looking at the probe from the West.

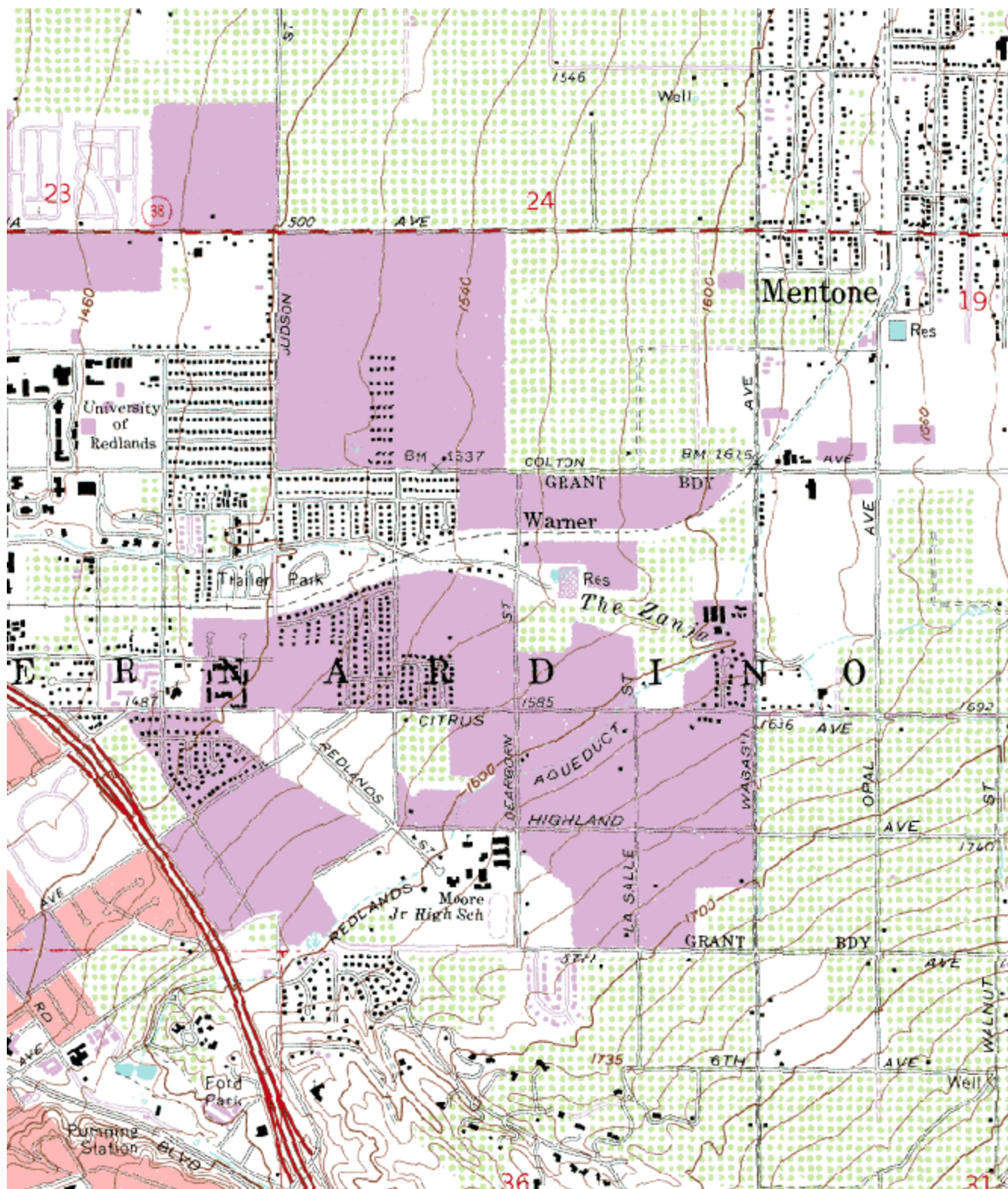
Quality Assurance Site Survey Report for Redlands

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060714003	36204	09/1986	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
500 N Dearborn St Redlands, CA 92374	San Bernardino	South Coast	34° 03' 35"N	117° 08' 50"W	475



Detailed Site Information

Local site name	Redlands			
AQS ID	060714003			
GPS coordinates (decimal degrees)	Latitude: 34° 03' 35" Longitude: 117° 08' 50"			
Street Address	500 N Dearborn Ave, Redlands, CA 92374			
County	San Bernardino			
Distance to roadways (meters)	26			
Traffic count (AADT, year)	10 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Dirt			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Ozone, 1	PM10, 1	WS & D, 1/1	RH/T, 1
Primary / QA Collocated / Other	N/A	Primary	N/A	N/A
Parameter code	44201	See Table 26	61101/61102	62201/62101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Meteorological	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	API/Teledyne 400E	Sierra Andersen 1200 SSI	RM Young 05305	Rotronic HC2-S3
Method code	087	063/102	065/065	061/061
FRM/FEM/ARM/ other	FEM	FRM	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/01/1986	09/01/1986	09/1986	09/1986
Current sampling frequency (e.g.1:3, continuous)	1:1	1:6	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:6	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	5.0	3.5	10	9.0
Distance from supporting structure (meters)	2.0	2.0	10	9.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	15	15
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	N/A
Residence time for reactive gases (seconds)	9.3	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	Monthly	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	10/18/2018	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	04/05/2018, 10/02/2018	N/A	N/A

**Redlands
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Redlands
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



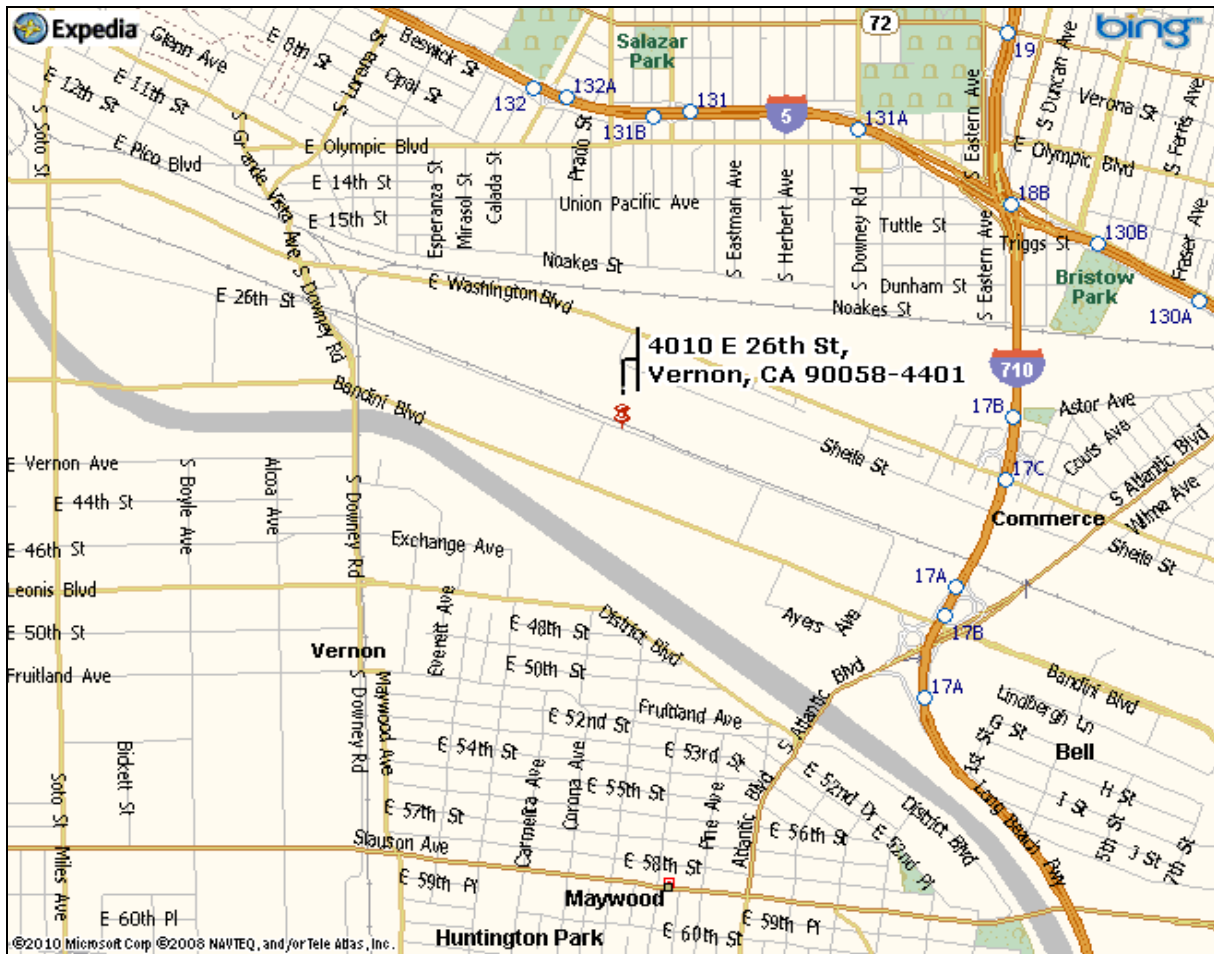
Looking at the probe from the South.



Looking at the probe from the West.

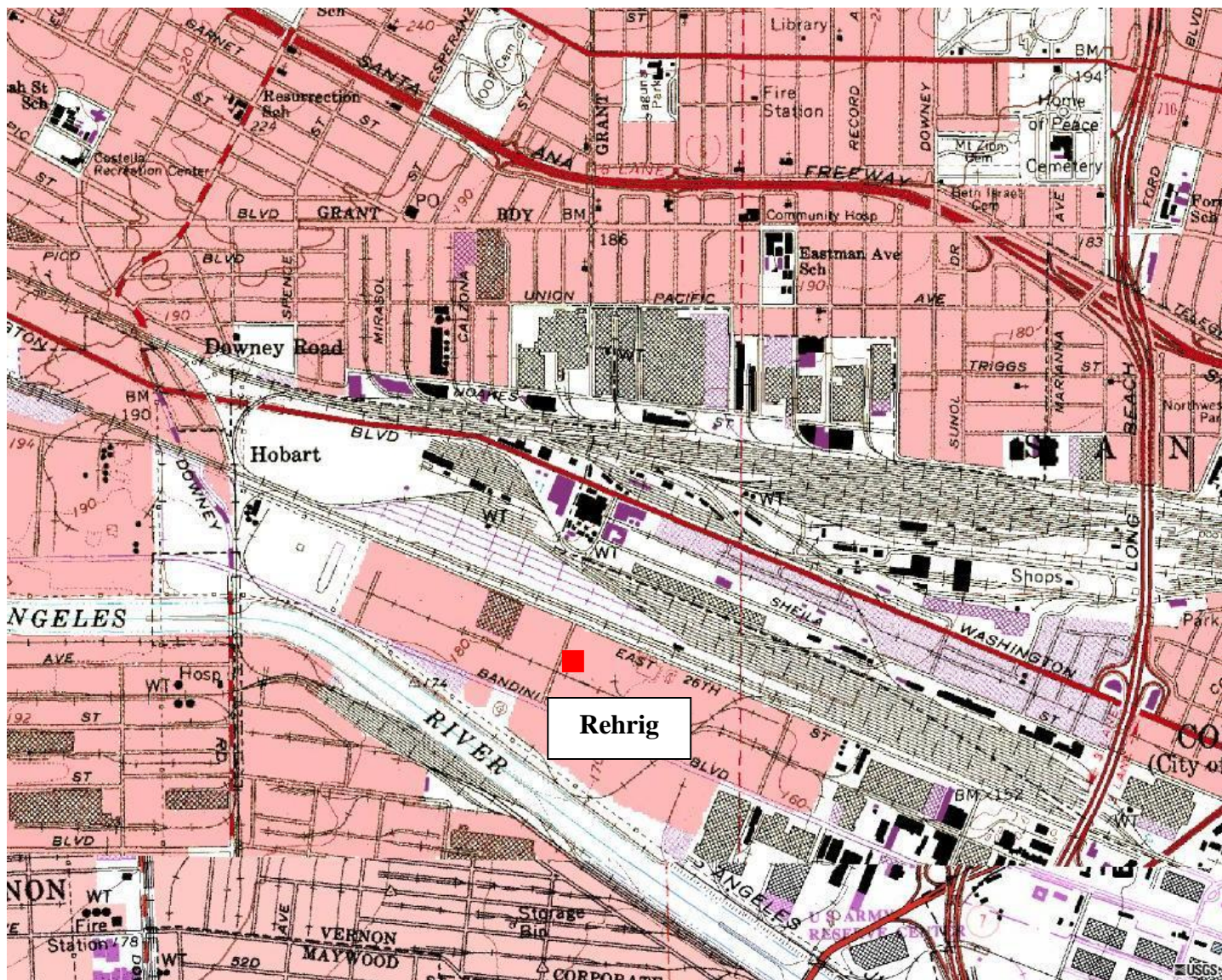
Quality Assurance Site Survey Report for Rehrig (Exide)

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060371405	70044	11/14/2007	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
4010 E. 26 th St Vernon, CA 90058	Los Angeles	South Coast	34° 00' 23"N	118° 11' 35"W	53 m



Detailed Site Information

Local site name	Rehrig, Site			
AQS ID	060371405			
GPS coordinates (decimal degrees)	Latitude: 34° 00' 23" Longitude: 118° 11' 35"			
Street Address	4010 E. 26 th St., Vernon, CA 90058			
County	Los Angeles			
Distance to roadways (meters)	205 (Bandini Blvd.)			
Traffic count (AADT, year)	20,291 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Dirt/Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	Lead, 1	Lead, 2	Lead, 3	
Primary / QA Collocated / Other	Primary	Composite	QA Collocated	
Parameter code	14129	14129	14129	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Source Oriented	Source Oriented	Source Oriented	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Tisch TE-5170	Tisch TE-5170	Tisch TE-5170	
Method code	110	110	110	
FRM/FEM/ARM/ other	FRM	FRM	FRM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Micro	Micro	Micro	
Monitoring start date (MM/DD/YYYY)	11/2007	11/2007	11/2007	
Current sampling frequency (e.g. 1:3, continuous)	1:2	1:2	1:12	
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	1:6	1:12	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	3.0	3.0	3.0	
Distance from supporting structure (meters)	2.0	2.0	2.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	2	2	2	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	Monthly	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/15/2018, 11/14/2018	05/15/2018, 11/14/2018	05/15/2018, 11/08/2018	

**Exide - Rehrig
Site Photos**



Looking North



Looking East from the probe.



Looking South from the probe.



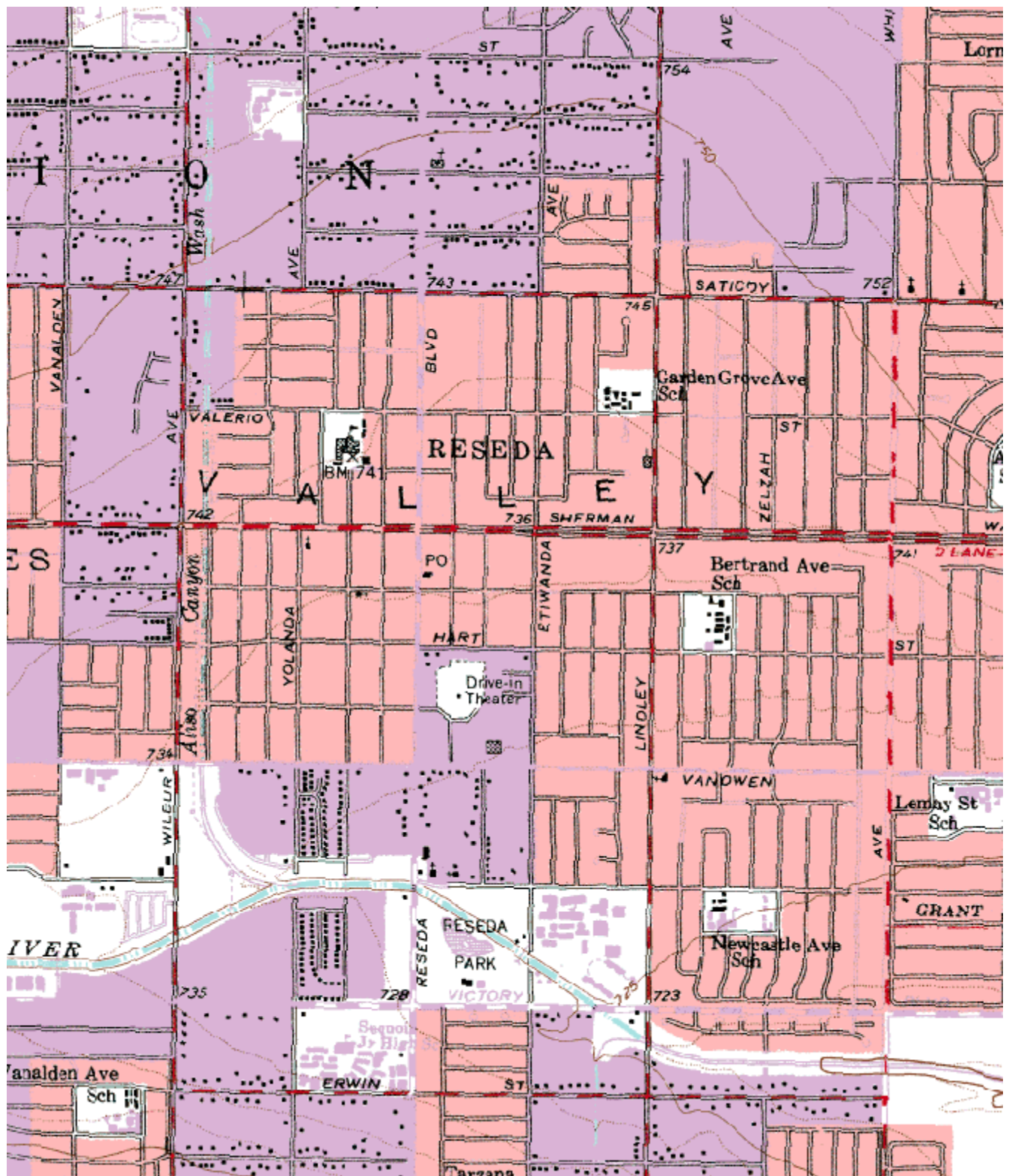
Looking West toward the probe

Quality Assurance Site Survey Report for Reseda

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code			
060371201	70074	03/1965	South Coast AQMD (061)			
Site Address		County	Air Basin	Latitude	Longitude	Elevation
18330 Gault St Reseda, CA 91702		Los Angeles	South Coast	34° 11' 57"N	118° 31' 58"W	224



Detailed Site Information

Local site name	Reseda			
AQS ID	060371201			
GPS coordinates (decimal degrees)	Latitude: 34° 11' 57" Longitude: 118° 31' 58"			
Street Address	18330 Gault St, Reseda, CA 91702			
County	Los Angeles			
Distance to roadways (meters)	16 -19			
Traffic count (AADT, year)	2,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles, Long Beach, Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 2	Ozone, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	42101	42602	44201	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Horiba APMA 370	Horiba APNA 370	Teledyne 400E	
Method code	158	157	087	
FRM/FEM/ARM/ other	FRM	FRM	FEM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Urban	Urban	
Monitoring start date (MM/DD/YYYY)	03/1965	03/1965	03/1965	
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	5.8	5.8	5.8	
Distance from supporting structure (meters)	2.3	2.3	2.3	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	
Residence time for reactive gases (seconds)	5.8	12.8	6.7	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	03/08/2018	03/08/2018	03/08/2018	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

Pollutant, POC	Continuous PM2.5, 3	24 Hour PM2.5, 1	WS & D, 1/1	RH/T, 1/1
Primary / QA Collocated / Other	Other	Primary	N/A	N/A
Parameter code	88502	See Table 26	61101/61102	62201/62101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Meteorological	Meteorological

Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Met One BAM 1020	Partisol 2025i	RM Young 05305	Rotronic HC2-S3
Method code	731	145	065/065	061/061
FRM/FEM/ARM/ other	Non-FEM	FRM	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	South Coast AQMD	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Urban/ Neighborhood	Urban/ Neighborhood
Monitoring start date (MM/DD/YYYY)	02/19/2009	01/24/1999	03/1965	03/1965
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:3	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:3	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	1.5	5.4	7.9	6.0
Distance from supporting structure (meters)	2	2	4.2	2.3
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	N/A	No	No	No

Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	Yes	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	Monthly	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	Monthly	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	03/13/2018, 09/26/2018	04/24/2018, 10/16/2018	N/A	N/A

**Reseda
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Reseda
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



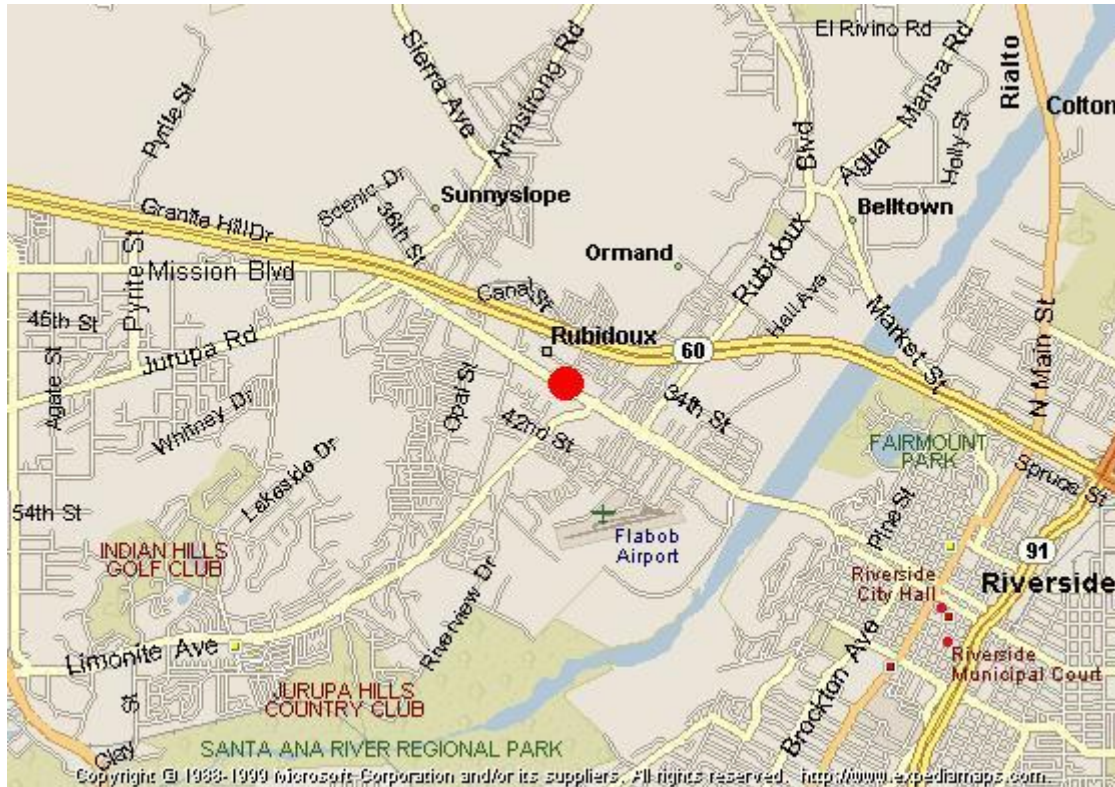
Looking at the probe from the South.



Looking at the probe from the West.

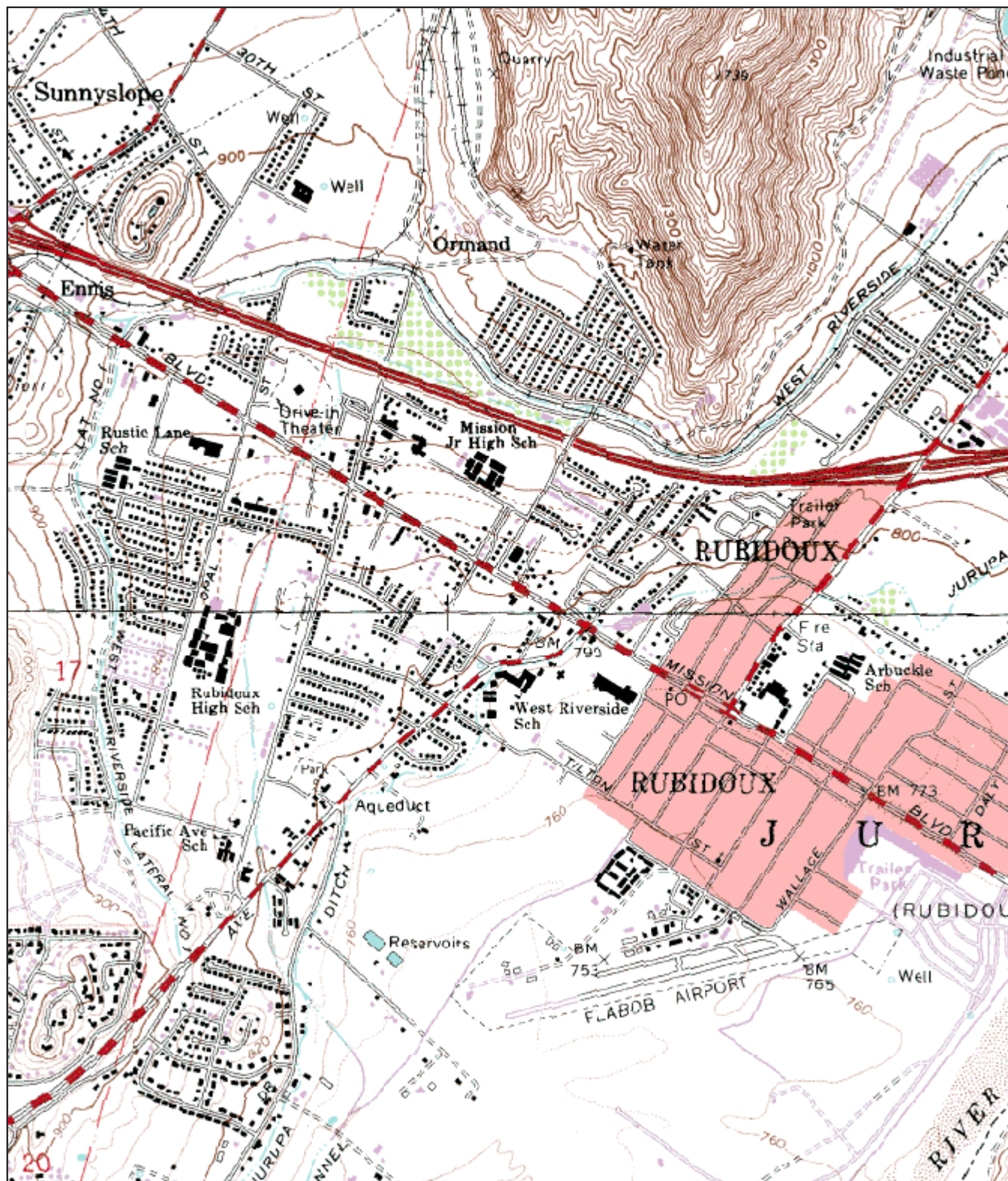
Quality Assurance Site Survey Report for Riverside-Rubidoux

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060658001	33144	09/1972	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
5888 Mission Blvd Riverside, CA 92509	Riverside	South Coast	33° 59' 58"N	117° 24' 57"W	248



Detailed Site Information

Local site name	Riverside-Rubidoux			
AQS ID	060658001			
GPS coordinates (decimal degrees)	Latitude: 33° 59' 58" Longitude: 117° 24' 57"			
Street Address	5888 Mission Blvd, Riverside, CA 92509			
County	Riverside			
Distance to roadways (meters)	119; 686			
Traffic count (AADT, year)	20,000 / 2012; 60/Valley Way, 145,000, 2011			
Groundcover (e.g. asphalt, dirt, sand)	Gravel			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 2	Ozone, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	42101	42602	44201	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Population Exposure	Highest Concentration	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	PAMS/NATTS/NCORE	PAMS/NATTS/NCORE	PAMS/NATTS/NCORE	
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	Thermo 49i	
Method code	158	074	047	
FRM/FEM/ARM/ other	FRM	FRM	FEM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Urban	Urban	
Monitoring start date (MM/DD/YYYY)	09/1972	09/1972	09/1972	
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	4	4	4	
Distance from supporting structure (meters)	1.52	1.52	1.52	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	
Residence time for reactive gases (seconds)	6.7	14.4	8.8	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	03/27/2018	03/27/2018	03/27/2018	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

Pollutant, POC	Continuous PM2.5, PM Coarse, 9	Continuous PM10, PM Coarse, 9	24 Hour VOCs, 4	
Primary / QA Collocated / Other	Other	Other	Primary	
Parameter code	88101	85101	See Table 26	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS/Research Support	
Site type(s)	Highest Concentration	Highest Concentration	Highest Concentration	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	N/A	N/A	NATTS	
Instrument manufacturer and model	Met One BAM 1020	Met One BAM 1020	RM Env. 910	
Method code	170	122	See Table 26	
FRM/FEM/ARM/ other	FEM	FEM	Other	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	South Coast AQMD	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	12/2008	07/30/2011	09/2007	
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:6	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	4	4	4	
Distance from supporting structure (meters)	2	2	1	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	1(Flow <200 lpm)	4	1	
Unrestricted airflow (degrees)	360°	360°	360°	

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	Stainless steel	
Residence time for reactive gases (seconds)	N/A	N/A	8.4	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	No, unless the manual sampler has missing data.	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	Monthly	Monthly	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	Semi Annually	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	06/16/2016, 12/09/2016	06/16/2016, 12/09/2016	05/29/2018	

Pollutant, POC	24 Hour VOCs, 2	24 Hour VOCs, 3	Carbonyls	
Primary / QA Collocated / Other	QA Collocated	N/A	Primary	
Parameter code	See Table 26	See Table 26	See Table 26	
Basic monitoring objective(s)	Research support	Research support	Research support	
Site type(s)	Highest Concentration	Highest Concentration	Highest Concentration	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	NATTS	PAMS	NATTS	
Instrument manufacturer and model	RM Env. 910	RM Env. 910	Atec 8000	
Method code	See Table 26	See Table 26	Carbonyls	
FRM/FEM/ARM/ other	Other	Other	Other	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	

Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	07/2009	11/2004	04/03/2018	
Current sampling frequency (e.g. 1:3, continuous)	1:Every other month	1:6	1:6	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	No CFR mandated sampling schedule.	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	4	4	3.0	
Distance from supporting structure (meters)	1	1	2.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	10	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	4	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Stainless steel	Stainless steel	N/A	
Residence time for reactive gases (seconds)	8.3	6.3	N/A	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	

Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	Semi Annually	Semi Annually	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/29/2018	05/29/2018	03/20/2019	

Pollutant, POC	VOCs, N/A	24 Hour PM2.5, 2	24 Hour PM2.5, 1	Speciated PM2.5, 11
Primary / QA Collocated / Other	N/A	QA Collocated	Primary	Primary
Parameter code	N/A	88101	88101	See Table 26
Basic monitoring objective(s)	Research support	NAAQS	NAAQS	Research support
Site type(s)	Highest Concentration	Highest Concentration	Highest Concentration	Highest Concentration
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Xontech 901	Thermo 2025i PM2.5, B Sampler QA Collocated	Thermo 2025i PM2.5, A Sampler	Met One SASS
Method code	N/A	145	145	See Table 26
FRM/FEM/ARM/ other	Other	FRM	FRM	Other
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	ARB Toxics	South Coast AQMD	South Coast AQMD	South Coast AQMD
Reporting Agency	ARB	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	01/1989	01/03/1999	12/04/1998	10/13/2004
Current sampling frequency (e.g. 1:3, continuous)	1:12	1:6	1:1	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:6	1:3	No CFR mandated sampling schedule.
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4	3	3	3

Distance from supporting structure (meters)	1	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	10	10	10
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	1.5(Flow <200 lpm)	1.5(Flow <200 lpm)	2
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Stainless steel	N/A	N/A	N/A
Residence time for reactive gases (seconds)	8.3	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	Yes	Yes	N/A
Frequency of flow rate verification for manual PM samplers	N/A	Monthly	Monthly	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Semi Annually	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A ARB	04/25/2018, 10/19/2018	04/25/2018, 10/19/2018	05/29/2018

Pollutant, POC	Speciated PM2.5, N/A	Speciated PM2.5, N/A	PM2.5 Carbon, N/A	PM2.5 Carbon, N/A
Primary / QA Collocated / Other	Primary	QA Collocated	Primary	QA Collocated
Parameter code	N/A	N/A	N/A	N/A
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Highest Concentration	Highest Concentration	Highest Concentration	Highest Concentration
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	STN	STN	STN	STN
Instrument manufacturer and model	Met One SASS, A Sampler	Met One SASS, B Sampler	URG-3000N, A Sampler	URG-3000N, B Sampler
Method code	N/A	N/A	N/A	N/A
FRM/FEM/ARM/ other	Other	Other	Other	Other
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	EPA STN	EPA STN	EPA STN	EPA STN
Reporting Agency	EPA	EPA	EPA	EPA
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	03/2001	03/2001	05/2007	05/2007
Current sampling frequency (e.g. 1:3, continuous)	1:3	1:6	1:3	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	1:3	1:6	1:3	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	3.0	3.0	3.0	3.0
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	1.5(Flow <200 lpm)	1.5(Flow <200 lpm)	1.5(Flow <200 lpm)	1.5(Flow <200 lpm)
Unrestricted airflow (degrees)	360°	360°	360°	360°

Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	Monthly	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

Pollutant, POC	Lead, 2	PM10, 2	PM10, 4	Metals, CR6, 1
Primary / QA Collocated / Other	Primary	Primary	QA Collocated	Primary
Parameter code	14129	See Table 26	See Table 26	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Highest Concentration	Highest Concentration	Highest Concentration
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	NATTS	N/A	N/A	NATTS
Instrument manufacturer and model	GMW 1200 TSP	Tisch TE-6001	Tisch TE-6001	RM Env. 924, A Sampler
Method code	110	063, 102	063, 102	See Table 26
FRM/FEM/ARM/ other	FRM	FRM	FRM	Other
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD

Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/06/1990	01/01/1988	01/01/1988	01/2007
Current sampling frequency (e.g. 1:3, continuous)	1:6	1:3	1:6	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	1:6	1:6	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	3.0	3.0	3.0	3.0
Distance from supporting structure (meters)	2.0	2.0	2.0	2.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	10	10	10	10
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	4	4	4
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	Monthly	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A

Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	04/25/2018, 10/19/2018	04/25/2018, 10/19/2018	04/25/2018, 10/19/2018	05/29/2018

Pollutant, POC	Metals, CR6, 2	Metals, CR6, Carbonyls, N/A	Polycyclic Aromatic Hydrocarbons, 1	Polycyclic Aromatic Hydrocarbons, 2
Primary / QA Collocated / Other	QA Collocated	Primary	Primary	QA Collocated
Parameter code	See Table 26	N/A	N/A	N/A
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Highest Concentration	Highest Concentration	Highest Concentration	Highest Concentration
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	NATTS	N/A	NATTS	NATTS
Instrument manufacturer and model	RM Env. 924, B Sampler	RM Env. 924	Tisch Env. PUF, A Sampler	Graseby PUF, B Sampler
Method code	See Table 26	N/A	N/A	N/A
FRM/FEM/ARM/ other	Other	Other	Other	Other
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	ARB Toxics	ERG North Carolina	ERG North Carolina
Reporting Agency	South Coast AQMD	ARB	ERG North Carolina	ERG North Carolina
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	01/2007	01/1989	07/2007	07/2007
Current sampling frequency (e.g.1:3, continuous)	1:Every other month	1:12	1:6	1:Every other month
Calculated sampling frequency (e.g. 1:3/1:1)	No CFR mandated sampling schedule.	No CFR mandated sampling schedule.	No CFR mandated sampling schedule.	No CFR mandated sampling schedule.
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	3	3	3	3
Distance from supporting structure (meters)	2	2	2	2
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	3	3	3	3
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	Monthly	N/A	Monthly	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/29/2018	N/A	N/A	N/A

Pollutant, POC	Carbon Monoxide, 9	Sulfur Dioxide, 9	NOY, 9	WS & D, 1/1
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Parameter code	42101	42401	42612	61101/61102
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Meteorological

Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	NCore	NCore	NCore	PAMS/NCORE
Instrument manufacturer and model	Teledyne 300EU	Thermo 43i-TLE	Thermo 42i-Y	RM Young 05305
Method code	593	560	574	065/065
FRM/FEM/ARM/other	FRM	FEM	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Urban	Neighborhood
Monitoring start date (MM/DD/YYYY)	03/30/2010	08/03/2010	08/19/2010	09/1972
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	1:1
Sampling season (MM/DD-MM/DD)	01/01/-12/31	01/01/-12/31	01/01/-12/31	01/01-12/31
Probe height (meters)	4	4	4	10
Distance from supporting structure (meters)	1.5	1.5	1.5	10
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	10
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	4.2	5.8	5.8	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No

Is it suitable for comparison against the annual PM2.5? (Y/N)	No	No	No	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Weekly	Weekly	Weekly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	12/26/2018	12/26/2018	12/26/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A

Pollutant, POC	RH/T, 1/1	BP, 1	SR, 1	UVR, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	N/A
Parameter code	62201/62101	64101	63301	63302
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Meteorological	Meteorological	Meteorological	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	PAMS/NCORE	PAMS/NCORE	PAMS/NCORE	PAMS/NCORE
Instrument manufacturer and model	Rotronic HC2-S3	Met One 091	Kipp & Zonen CMP6	Eppley TUVB
Method code	061/061	015	011	011
FRM/FEM/ARM/ other	N/A	N/A	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/1972	09/1972	09/1972	09/1972
Current sampling frequency (e.g.1:3, continuous)	Continuous	Continuous	Continuous	Continuous

Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	9.0	4.0	3.8	3.6
Distance from supporting structure (meters)	9.0	1.6	1.4	1.2
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	10	10	10	10
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	N/A	N/A
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A

Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	N/A
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**Riverside-Rubidoux
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Riverside-Rubidoux
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



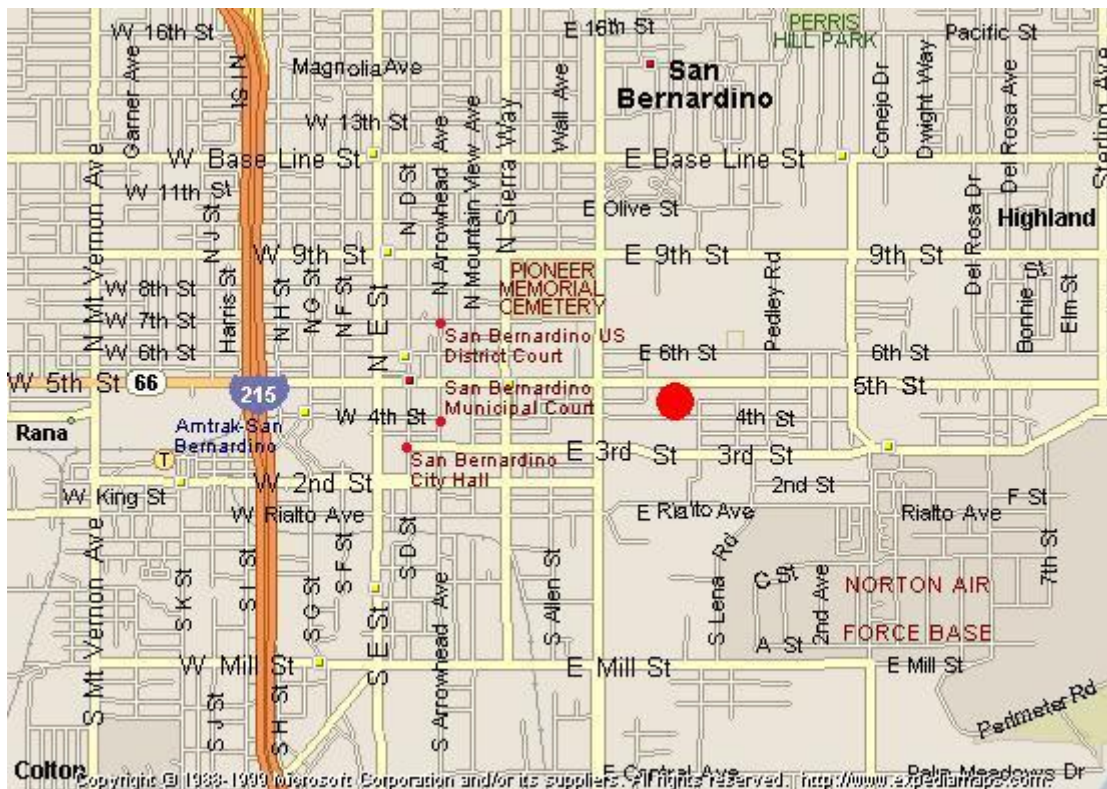
Looking at the probe from the South.



Looking at the probe from the West.

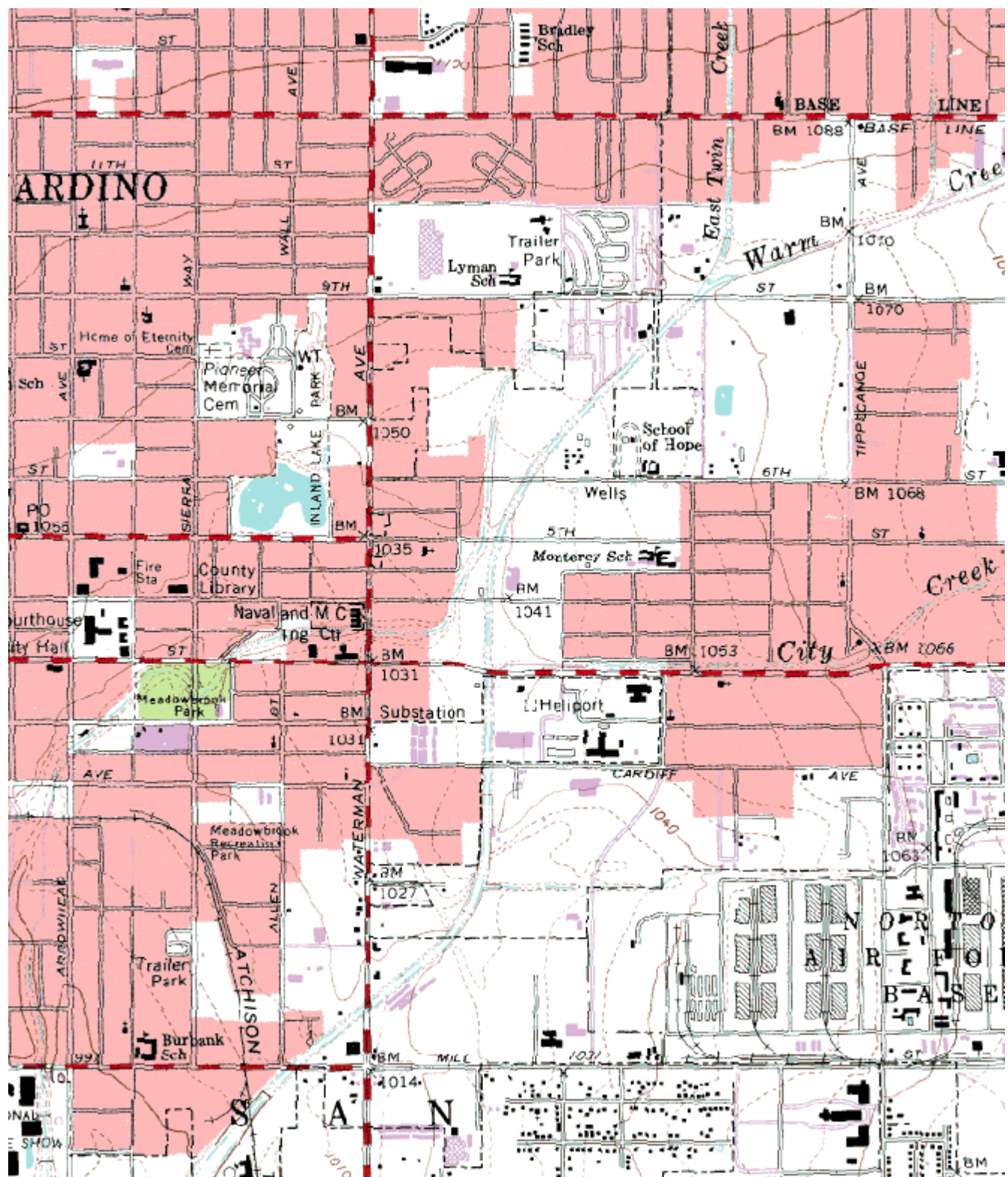
Quality Assurance Site Survey Report for San Bernardino

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060719004	36203	05/1986	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
24302 E 4th St San Bernardino, CA 92410	San Bernardino	South Coast	34° 06' 24"N	117° 16' 26"W	316



Detailed Site Information

Local site name	San Bernardino			
AQS ID	060719004			
GPS coordinates (decimal degrees)	Latitude: 34° 06' 24" Longitude: 117° 16' 26"			
Street Address	24302 E 4 th St, San Bernardino, CA 92410			
County	San Bernardino			
Distance to roadways (meters)	16 - 23			
Traffic count (AADT, year)	2,500 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	Continuous PM10, 3
Primary / QA Collocated / Other	N/A	N/A	N/A	Other
Parameter code	42101	42602	44201	81102
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Highest Concentration	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo 42i	API/Teledyne 400E	R&P 1400A TEOM
Method code	158	074	087	079
FRM/FEM/ARM/ other	FRM	FRM	FEM	FEM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Middle	Urban	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	05/1986	05/1986	05/1986	09/01/2004
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	1;1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.8	4.8	4.8	2.4
Distance from supporting structure (meters)	1.4	1.4	1.4	1.4
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	2.6
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	9.0	15.4	10.0	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Monthly
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	03/23/2018	03/23/2018	03/23/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	03/06/2018, 09/07/2018

Pollutant, POC	Lead, 2	24 Hour PM2.5, 1	PM10, 2	
Primary / QA Collocated / Other	Primary	Primary	Primary	
Parameter code	14129	See Table 26	See Table 26	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	

Site type(s)	Population Exposure	Population Exposure	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	GMW 1200 TSP	Andersen RAAS PM2.5	Tisch TE-6001	
Method code	110	780, 120	141	
FRM/FEM/ARM/other	FRM	FRM	FRM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date (MM/DD/YYYY)	09/1990	08/27/2008	01/1997	
Current sampling frequency (e.g. 1:3, continuous)	1:6	1:3	1:6	
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	1:3	1:6	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	2.0	2.0	2.0	
Distance from supporting structure (meters)	1.0	1.0	1.0	
Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	N/A	N/A	N/A	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	2.6	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	
Residence time for reactive gases (seconds)	N/A	N/A	N/A	

Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	Yes	No	
Frequency of flow rate verification for manual PM samplers	Monthly	Monthly	Monthly	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	04/04/2018, 10/02/2018	04/04/2018, 10/03/2018	04/04/2018, 10/02/2018	

Pollutant, POC	WS & D, 1/1	RH/T, 1/1		
Primary / QA Collocated / Other	Primary	Primary		
Parameter code	61101/61102	62201/62101		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Meteorological	Meteorological		
Monitor (type)	SLAMS	SLAMS		
Network affiliation	N/A	N/A		
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3		
Method code	065/065	061/061		
FRM/FEM/ARM/ other	N/A	N/A		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Urban/Middle/ Neighborhood	Urban/Middle/ Neighborhood		
Monitoring start date (MM/DD/YYYY)	05/1986	05/1986		
Current sampling frequency (e.g.1:3, continuous)	Continuous	Continuous		

Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	10	4.9		
Distance from supporting structure (meters)	6.6	1.5		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	12	12		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	N/A		
Unrestricted airflow (degrees)	360°	360°		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		

Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A		

**San Bernardino
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**San Bernardino
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



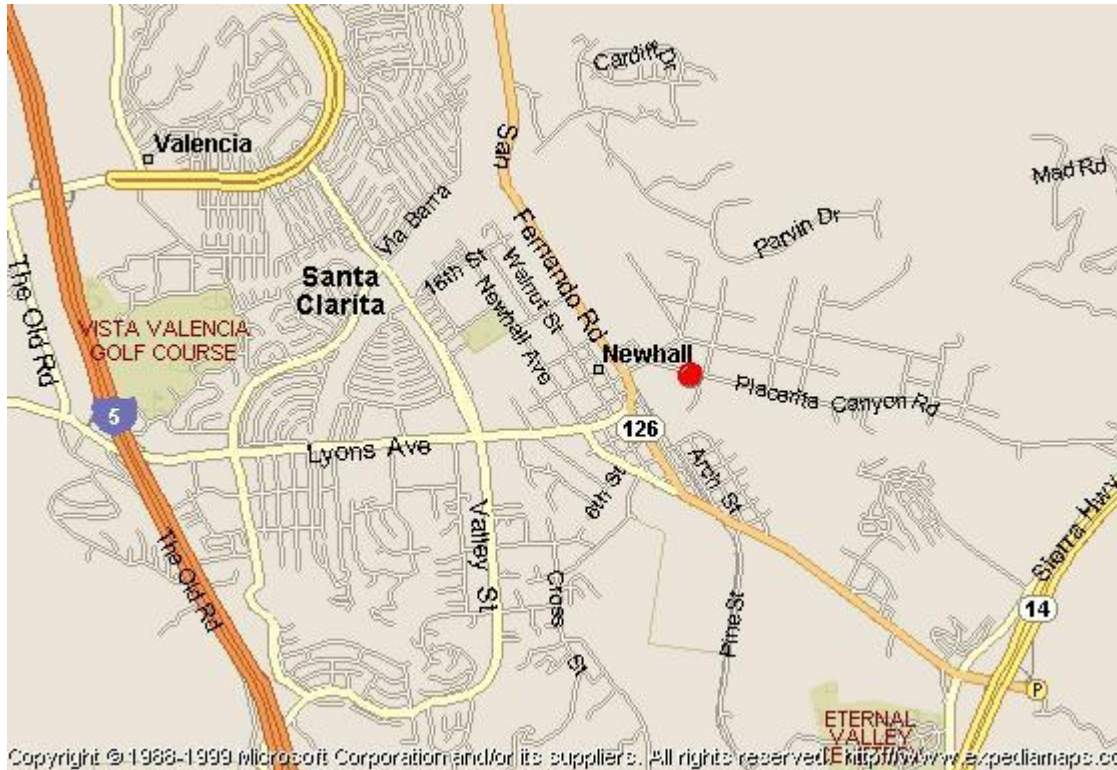
Looking at the probe from the South.



Looking at the probe from the West.

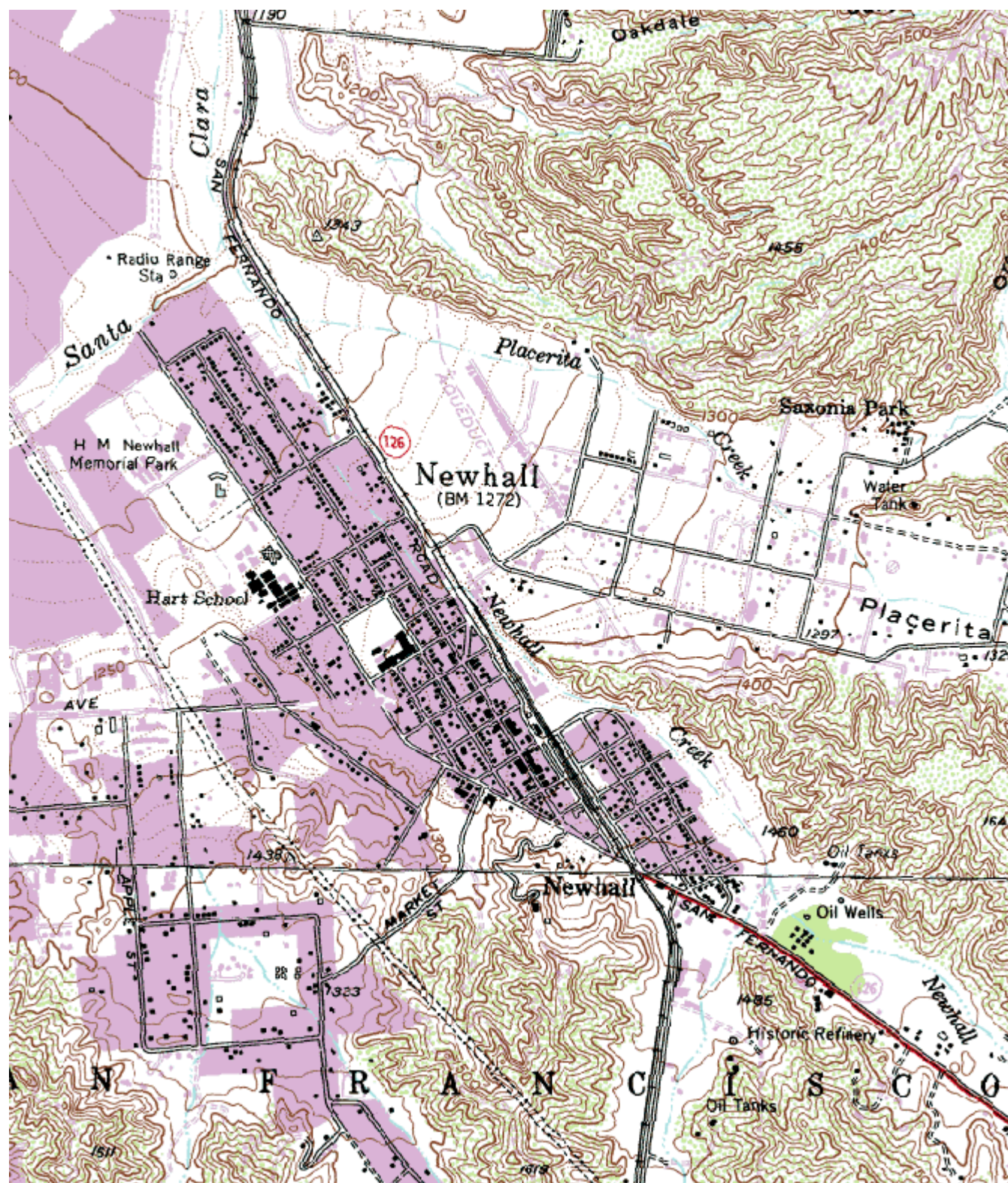
Quality Assurance Site Survey Report for Santa Clarita-Placerita

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060376012	70090	05/2001	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
22224 Placerita Canyon Rd Santa Clarita, CA 91321	Los Angeles	South Coast	34° 23' 0"N	118° 31' 42"W	386



Detailed Site Information

Local site name	Santa Clarita-Placerita			
AQS ID	060376012			
GPS coordinates (decimal degrees)	Latitude: 34° 23' 0" Longitude: 118° 31' 42"			
Street Address	22224 Placerita Canyon, Santa Clarita, CA 91321			
County	Los Angeles			
Distance to roadways (meters)	91			
Traffic count (AADT, year)	5,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles, Long Beach, Anaheim MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	PM10, 1
Primary / QA Collocated / Other	N/A	N/A	N/A	Primary
Parameter code	42101	42602	44201	See Table 26
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Network affiliation	N/A	N/A	N/A	N/A
Site type(s)	Population Exposure	Population Exposure	Highest Concentration	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Instrument manufacturer and model	Horiba APMA 360	Teledyne 200E	Teledyne 400E	GMW 1200 SSI
Method code	106	099	087	063, 102
FRM/FEM/ARM/ other	FRM	FRM	FEM	FRM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	South Coast AQMD
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Urban	Neighborhood
Monitoring start date (MM/DD/YYYY)	05/2001	05/2001	05/2001	05/2001
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	1:6
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	1:6
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.4	4.4	4.4	2.4
Distance from supporting structure (meters)	1.8	1.8	1.8	1.4
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	30	30	30	30
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	9.3	10.4	10.0	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	Monthly
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	08/28/2018	08/28/2018	08/28/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	05/22/2018, 11/01/2018

Pollutant, POC	Continuous PM2.5, 3	WS & D, 1/1	RH/T, 1/1	BP, 1
Primary / QA Collocated / Other	Other	Primary	Primary	Primary
Parameter code	88502	61101/61102	62201/62101	64101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Meteorological	Meteorological	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Met One BAM 1020	RM Young 05305	Rotronic HC2-S3	Met One 091
Method code	731	065/065	061/061	015
FRM/FEM/ARM/ other	Non-FEM	N/A	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Urban/ Neighborhood	Urban/ Neighborhood	Urban/ Neighborhood
Monitoring start date (MM/DD/YYYY)	10/23/2008	05/2001	05/2001	05/2001
Current sampling frequency (e.g.1:3, continuous)	1:1	Continuous	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:1	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	5.4	10	9.0	1.5
Distance from supporting structure (meters)	1.8	10	9.0	1.5
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	16	16	16	16
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A

Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Stainless	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	Monthly	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	03/13/2018, 09/25/2018	N/A	N/A	N/A

**Santa Clarita-Placerita
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Santa Clarita-Placerita
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



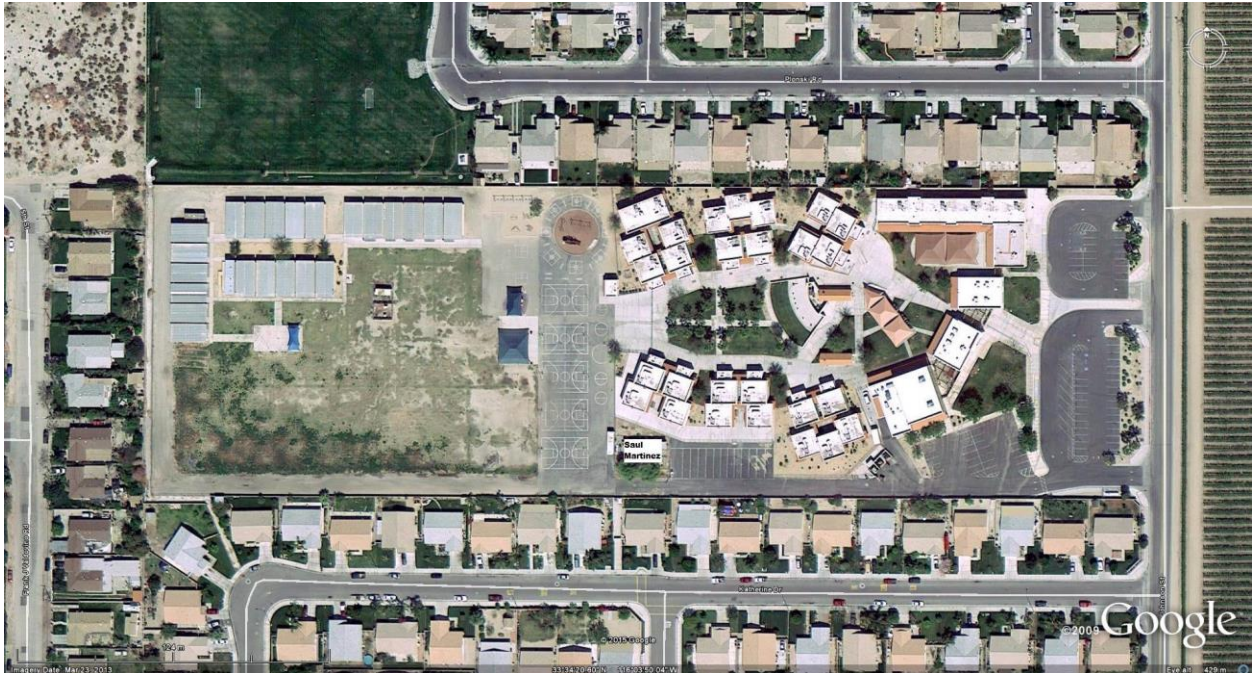
Looking at the probe from the South.



Looking at the probe from the West.

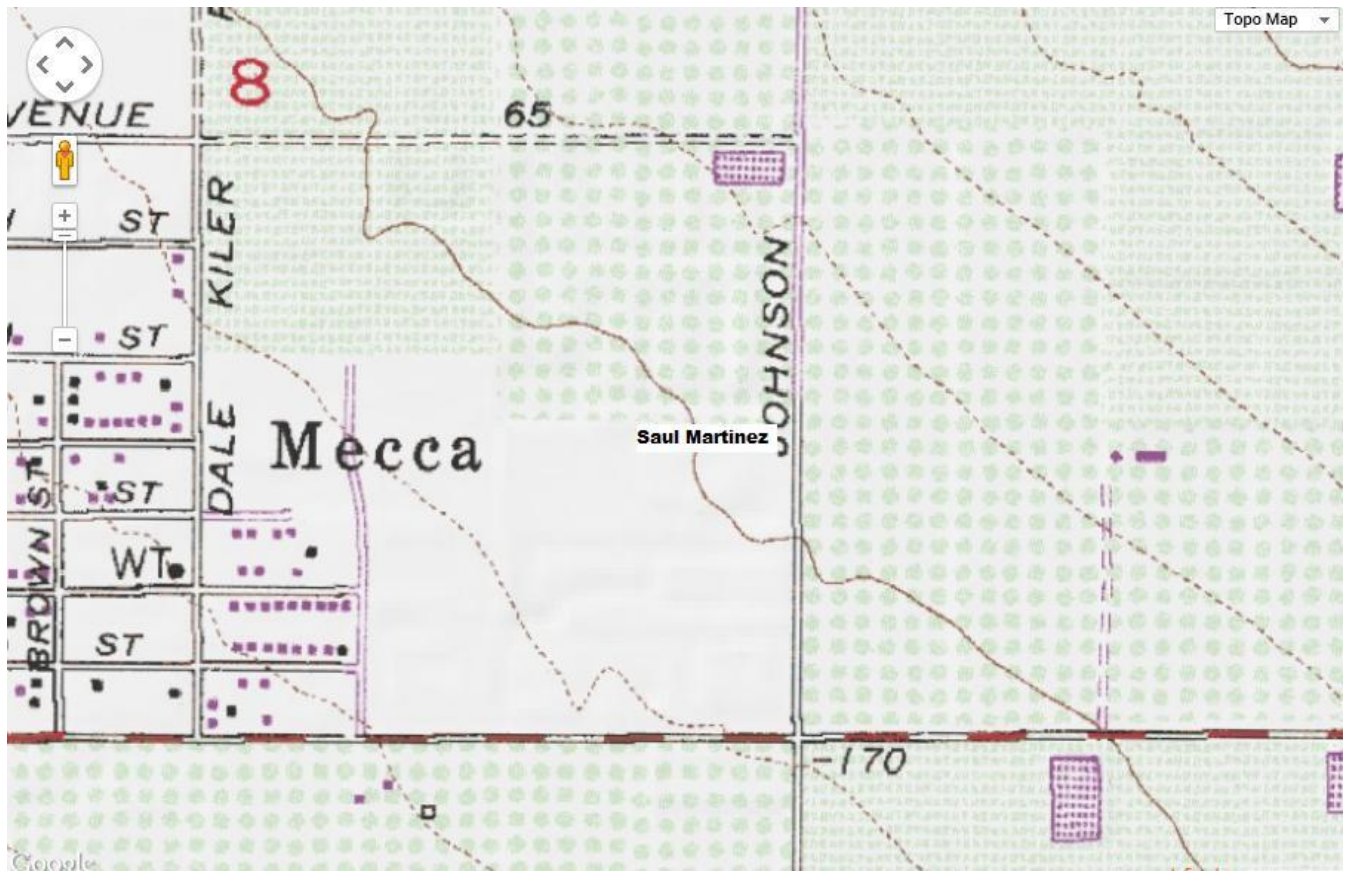
Quality Assurance
Site Survey Report for Mecca (Saul Martinez)

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060652005	33033	1/2011	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
65705 Johnson St, Mecca, CA 92254	Riverside	South Coast	33° 34' 19"N	116° 03' 49"W	0



Detailed Site Information

Local site name	Saul Martinez (Mecca)			
AQS ID	060652005			
GPS coordinates (decimal degrees)	Latitude: 33° 34' 19"N Longitude: 116° 03' 49"W			
Street Address	65705 Johnson St, Mecca, CA 92254			
County	Riverside			
Distance to roadways (meters)	25			
Traffic count (AADT, year)	< 500 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Weeds			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	PM10, 1	Continuous PM10, 3		
Primary / QA Collocated / Other	Primary	Other		
Parameter code	See Table 26	81102		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Highest Concentration	Highest Concentration		
Monitor (type)	SLAMS	SLAMS		
Network Affiliation	N/A	N/A		
Instrument manufacturer and model	Tisch TE-6001	R&P 1400A TEOM		
Method code	141	079		
FRM/FEM/ARM/ other	FRM	FEM		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD	N/A		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood		
Monitoring start date (MM/DD/YYYY)	01/2011	09/01/2011		
Current sampling frequency (e.g. 1:3, continuous)	1:6	1;1		
Calculated sampling frequency (e.g. 1:3/1:1)	1:6	N/A		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	2.6	3.4		
Distance from supporting structure (meters)	2.0	2.0		
Distance from obstructions on roof (meters)	N/A	N/A		

Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	N/A	N/A		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	2.6		
Unrestricted airflow (degrees)	360°	360°		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	Monthly	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	06/08/2018, 11/21/2018	03/01/2018, 09/04/2018		

**Mecca-Saul Martinez
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Mecca-Saul Martinez
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



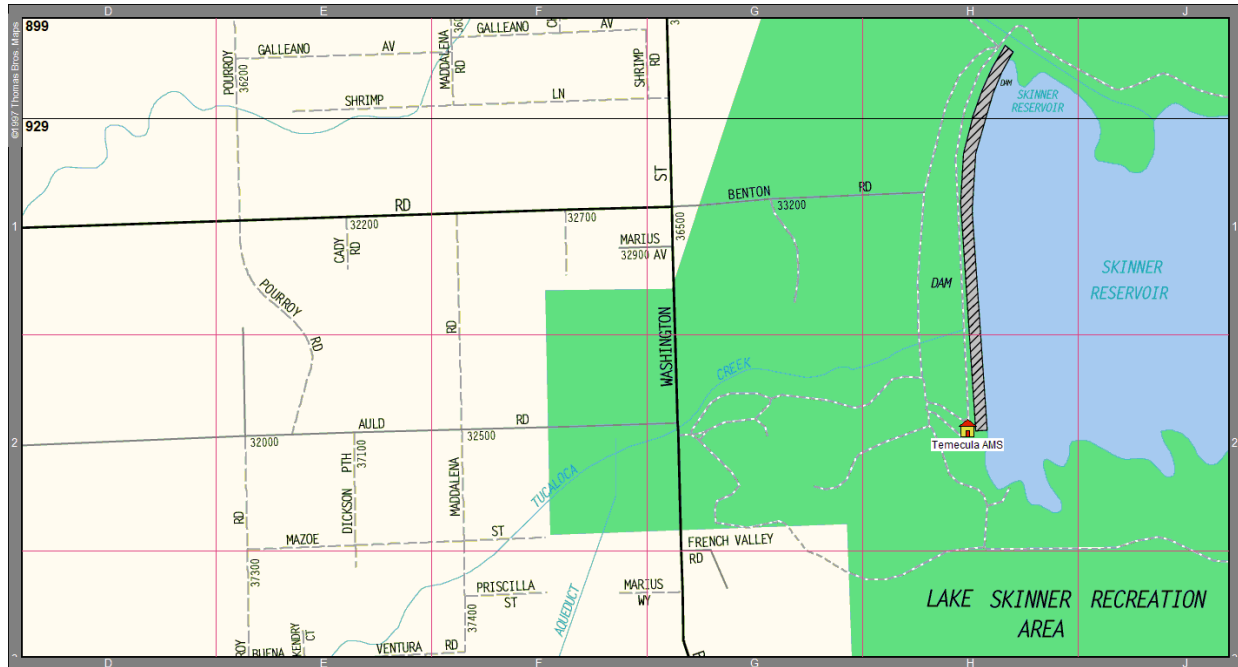
Looking at the probe from the South.



Looking at the probe from the West.

Quality Assurance Site Survey Report for Temecula (Lake Skinner)

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060650016	33031	06/30/2010	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
33700 Borel Rd. Winchester, CA 92596	Riverside	South Coast	33° 34' 59"N	117° 04' 20"W	453 m



33700 Borel Rd, Winchester, CA 92596

Temecula AMS location

©2009 Google

Imagery Date: Nov 16, 2009

©2010 Google
33°34'55.69"N 117°04'43.45"W elev 426 m

Eye alt 1.98 km

Detailed Site Information

Local site name	Temecula (Lake Skinner)			
AQS ID	060650016			
GPS coordinates (decimal degrees)	Latitude: 33° 34' 59" Longitude: 117° 04' 20"			
Street Address	33700 Borel Rd. Winchester, CA 92596			
County	Riverside			
Distance to roadways (meters)	10			
Traffic count (AADT, year)	20 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Ozone , 1	Continuous PM2.5, 3	WS & D, 1/1	RH/T, 1/1
Primary / QA Collocated / Other	N/A	Other	Primary	Primary
Parameter code	44201	88502	61101/61102	62201/62101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Highest Concentration	Population Exposure	Meteorological	Meteorological
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Teledyne API 400E	Met One BAM 1020	RM Young 05305	Rotronic HC2-S3
Method code	087	731	065/065	061/061
FRM/FEM/ARM/ other	FEM	Non-FEM	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/30/2010	06/30/2010	06/2010	06/2010
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4	4	10	9.0
Distance from supporting structure (meters)	1	1	10	9.0
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	16.7	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	Monthly	N/A	N/A
Frequency of one-point QC check for gaseous instruments	Nightly	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	11/21/2018	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	03/02/2018, 09/07/2018	N/A	N/A

**Temecula – Lake Skinner
Site Photos**



Looking North from probe



Looking East from the probe.



Looking South from the probe.



Looking West from the probe

**Temecula – Lake Skinner
Site Photos (Cont.)**



Looking at the probe to the North.



Looking from the probe to the East.



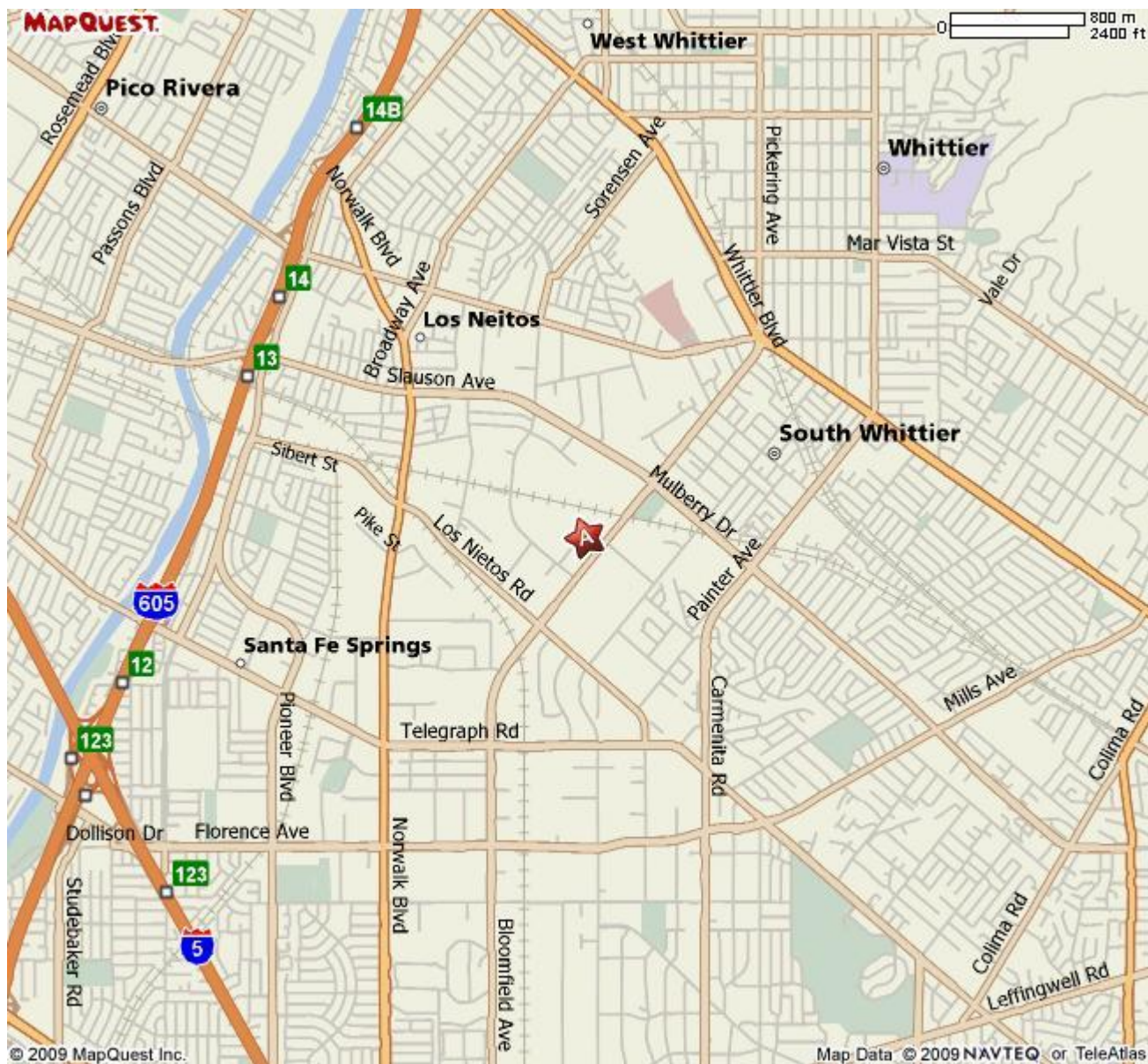
Looking at the probe to the South.



Looking at the probe to the West.

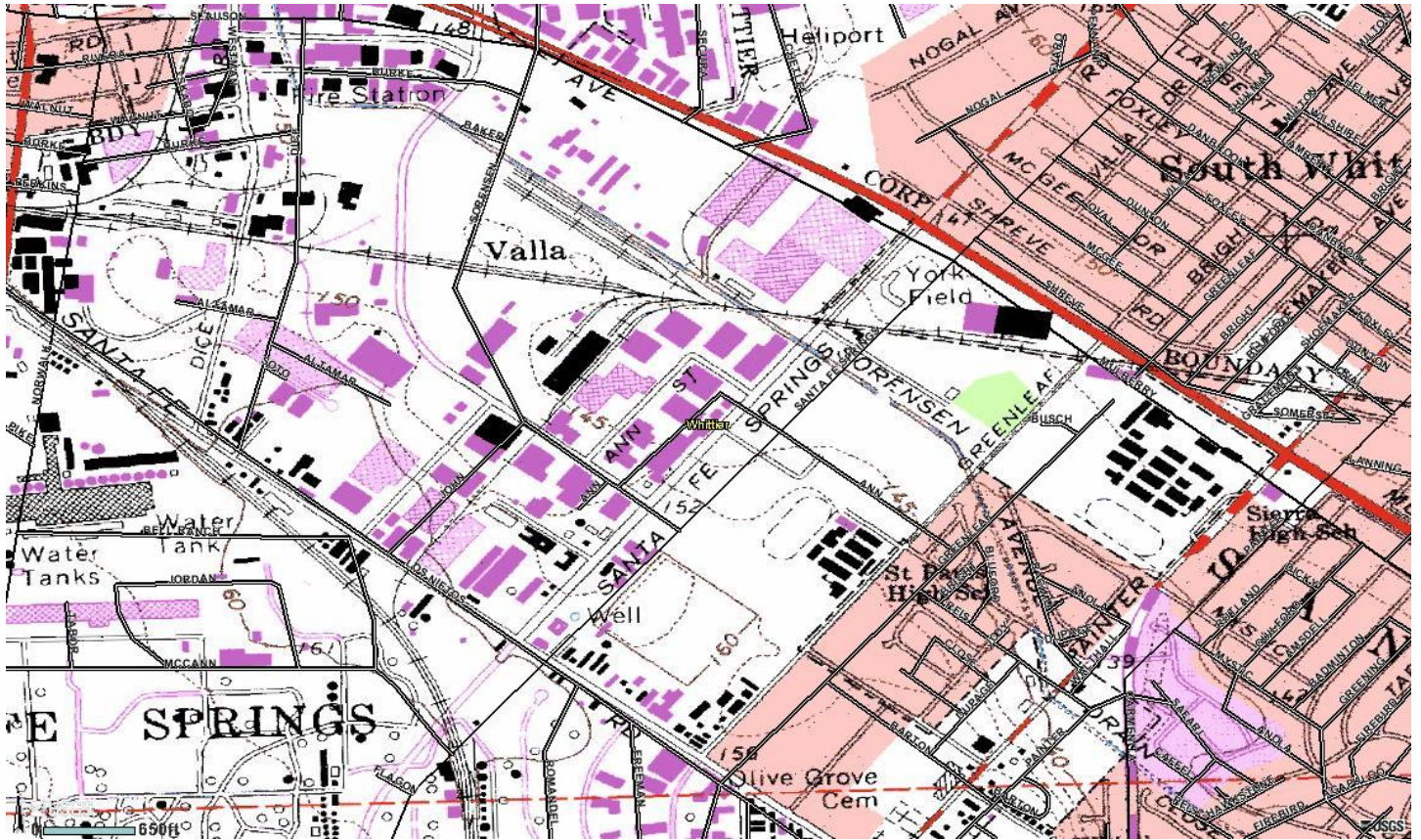
Quality Assurance Site Survey Report for Uddeholm (Quemetco)

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060371403	70045	11/26/1992	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
9440 Ann St. Santa Fe Springs, CA 90670	Los Angeles	South Coast	33° 57' 17"N	118° 03' 20"W	44 m



Detailed Site Information

Local site name	Uddeholm (Trojan Battery)			
AQS ID	060371403			
GPS coordinates (decimal degrees)	Latitude: 33° 57' 17" Longitude: 118° 03' 20'			
Street Address	9440 Ann St. Santa Fe Springs, CA 90670			
County	Los Angeles			
Distance to roadways (meters)	26			
Traffic count (AADT, year)	30,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Asphalt			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim MSA			
Pollutant, POC	Lead, 1			
Primary / QA Collocated / Other	Primary			
Parameter code	14129			
Basic monitoring objective(s)	NAAQS			
Site type(s)	Source Oriented			
Monitor (type)	SLAMS			
Network affiliation	N/A			
Instrument manufacturer and model	Tisch+ TSP			
Method code	110			
FRM/FEM/ARM/ other	FRM			
Collecting Agency	South Coast AQMD			
Analytical Lab (i.e., weigh lab, toxics lab, other)	South Coast AQMD			
Reporting Agency	South Coast AQMD			
Spatial scale (e.g. micro, neighborhood)	Micro			
Monitoring start date (MM/DD/YYYY)	11/26/1992			
Current sampling frequency (e.g. 1:3, continuous)	1:6			
Calculated sampling frequency (e.g. 1:3/1:1)	1:6			
Sampling season (MM/DD-MM/DD)	01/01-12/31			
Probe height (meters)	2.6			
Distance from supporting structure (meters)	2.0			
Distance from obstructions on roof (meters)	N/A			

Distance from obstructions not on roof (meters)	N/A			
Distance from trees (meters)	N/A			
Distance to furnace or incinerator flue (meters)	N/A			
Distance between collocated monitors (meters)	N/A			
Unrestricted airflow (degrees)	360°			
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A			
Residence time for reactive gases (seconds)	N/A			
Will there be changes within the next 18 months? (Y/N)	No			
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A			
Frequency of flow rate verification for manual PM samplers	Monthly			
Frequency of flow rate verification for automated PM analyzers	N/A			
Frequency of one-point QC check for gaseous instruments	N/A			
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A			
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	05/17/2018, 11/20/2018			

**Trojan Battery - UDDH
Site Photos**



Looking North from the probe



Looking East from the probe.



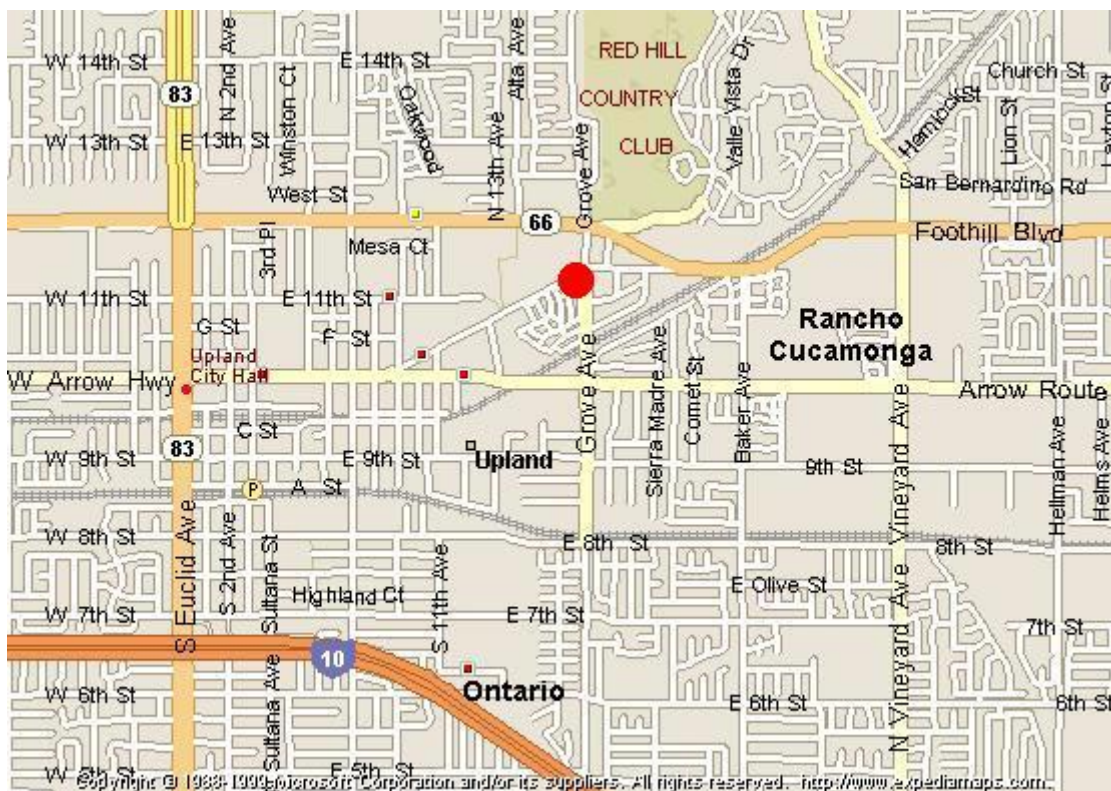
Looking South toward the probe.

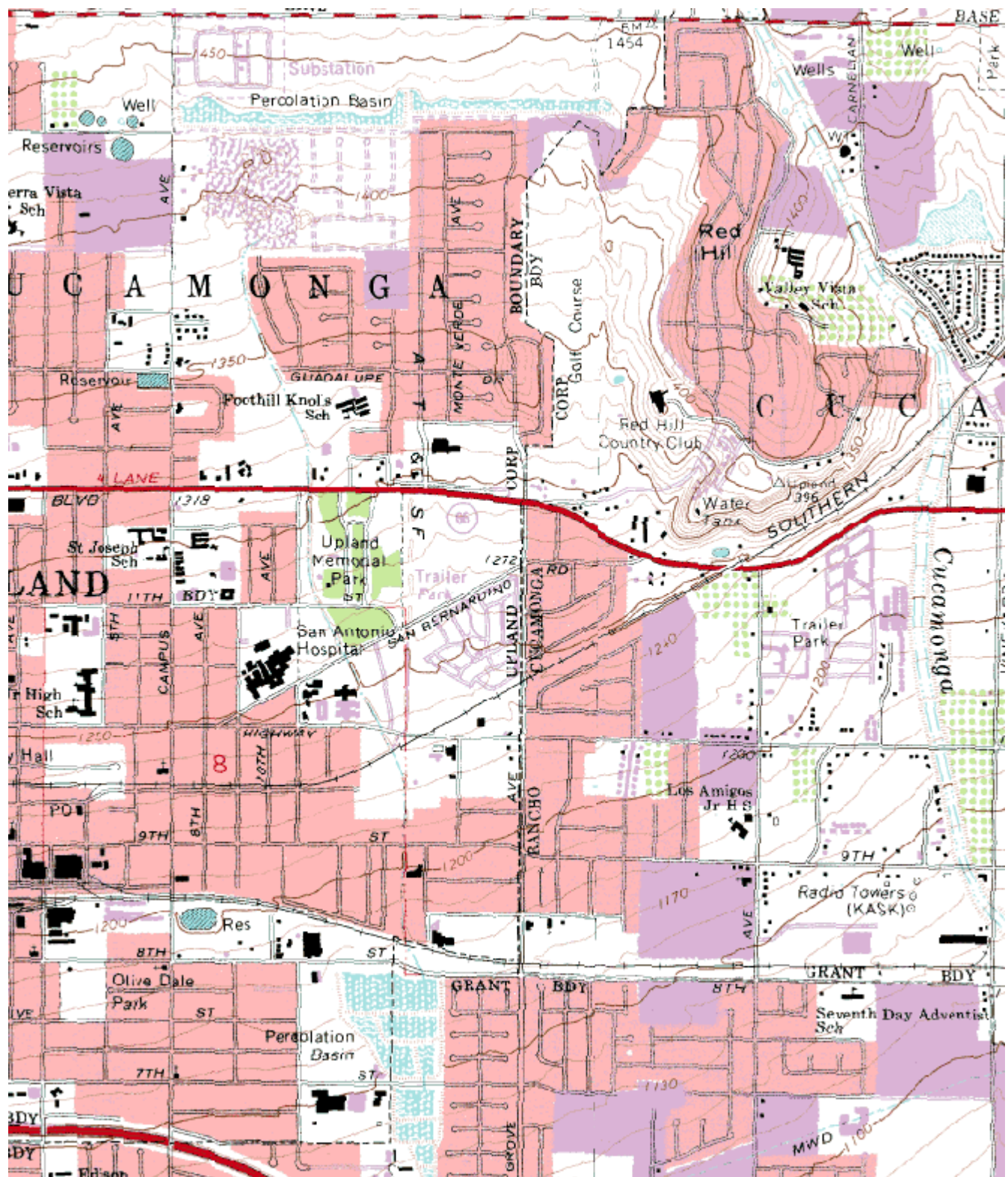


Looking West from the probe

Quality Assurance Site Survey Report for Upland

Last updated: May, 2019





Detailed Site Information

Local site name	Upland			
AQS ID	060711004			
GPS coordinates (decimal degrees)	Latitude: 34° 06' 13" Longitude: 117° 37' 45"			
Street Address	1350 San Bernardino Rd, #62, Upland, CA 91786			
County	San Bernardino			
Distance to roadways (meters)	80			
Traffic count (AADT, year)	10,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Gravel			
Representative statistical area name (i.e. MSA, CBSA, other)	40140-Riverside-San Bernardino-Ontario, CA MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 2	Ozone, 1	Continuous PM10, 3
Primary / QA Collocated / Other	N/A	N/A	N/A	Other
Parameter code	42101	42602	44201	81162
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Population Exposure	Population Exposure	Population Exposure
Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Horiba APMA 370	Thermo Scientific 42i	API/Teledyne 400E	Met One BAM 1020
Method code	158	074	087	122
FRM/FEM/ARM/ other	FRM	FRM	FEM	FEM
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	03/1973	03/1973	03/1973	04/02/2010
Current sampling frequency (e.g.1:3, continuous)	1:1	1:1	1:1	1:1
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	N/A
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.7	4.7	4.7	5.1
Distance from supporting structure (meters)	1.3	1.3	1.3	1.7
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A

Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	N/A
Residence time for reactive gases (seconds)	7.7	13.3	8.4	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	Monthly
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	08/17/2018	08/17/2018	08/17/2018	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	03/27/2018, 09/21/2018

Pollutant, POC	Continuous PM2.5, 3	WS & D, 1/1	RH/T, 1/1	BP, 1
Primary / QA Collocated / Other	Other	N/A	N/A	N/A
Parameter code	88502	61101/61102	62201/62101	64101
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	NAAQS
Site type(s)	Population Exposure	Meteorological	Meteorological	Meteorological

Monitor (type)	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	Met One BAM 1020	RM Young 05305	Rotronic HC2-S3	Met One 091
Method code	731	065/065	061/061	015
FRM/FEM/ARM/ other	Non-FEM	N/A	N/A	N/A
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	N/A
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	South Coast AQMD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	05/08/2009	03/1973	03/1973	03/1973
Current sampling frequency (e.g. 1:3, continuous)	1:1	Continuous	Continuous	Continuous
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	1:1	1:1	1:1
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	5.1	10	9.0	1.5
Distance from supporting structure (meters)	1.7	10	9.0	1.5
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	16.5	16.5	16.5
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360°	360°	360°	360°
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A	N/A	N/A
Residence time for reactive gases (seconds)	N/A	N/A	N/A	N/A
Will there be changes within the next 18 months? (Y/N)	No	No	No	No

Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	Monthly	N/A	N/A	N/A
Frequency of one-point QC check for gaseous instruments	N/A	N/A	N/A	N/A
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A	N/A	N/A
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	03/27/2018, 09/21/2018	N/A	N/A	N/A

**Upland
Site Photos**



Looking North from the probe.



Looking East from the probe.



Looking South from the probe.



Looking West from the probe.

**Upland
Site Photos (Cont.)**



Looking at the probe from the North.



Looking at the probe from the East.



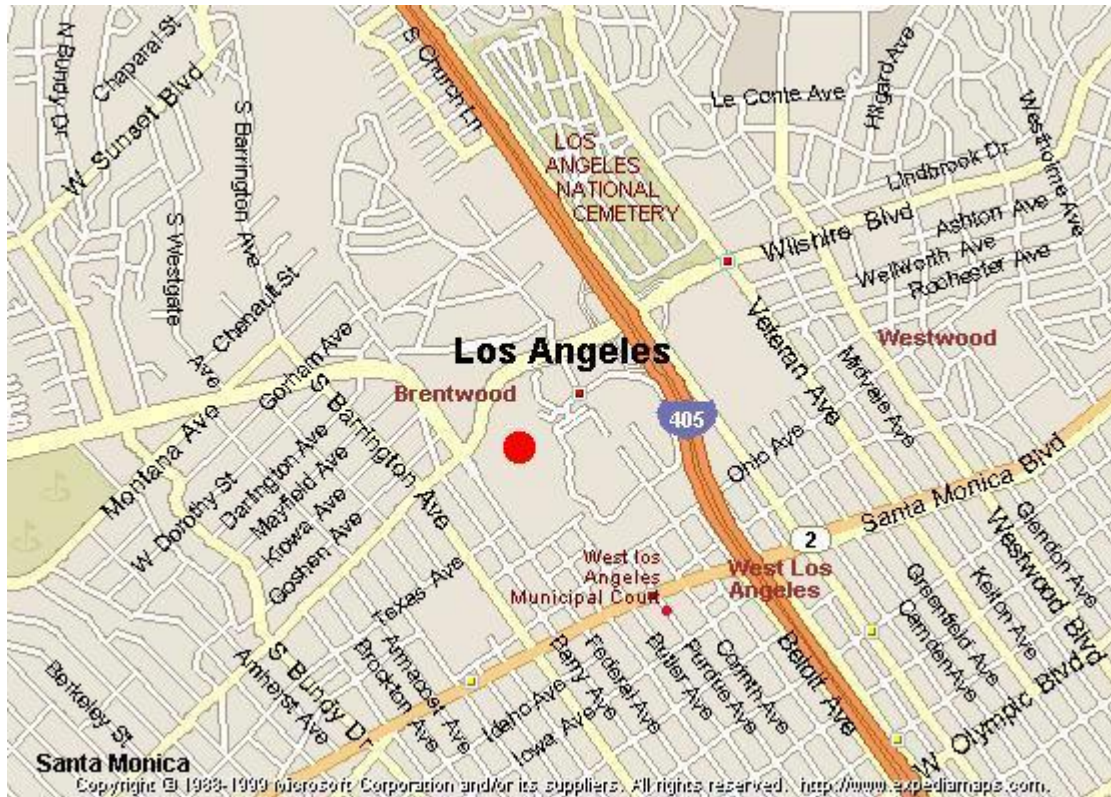
Looking at the probe from the South.



Looking at the probe from the West.

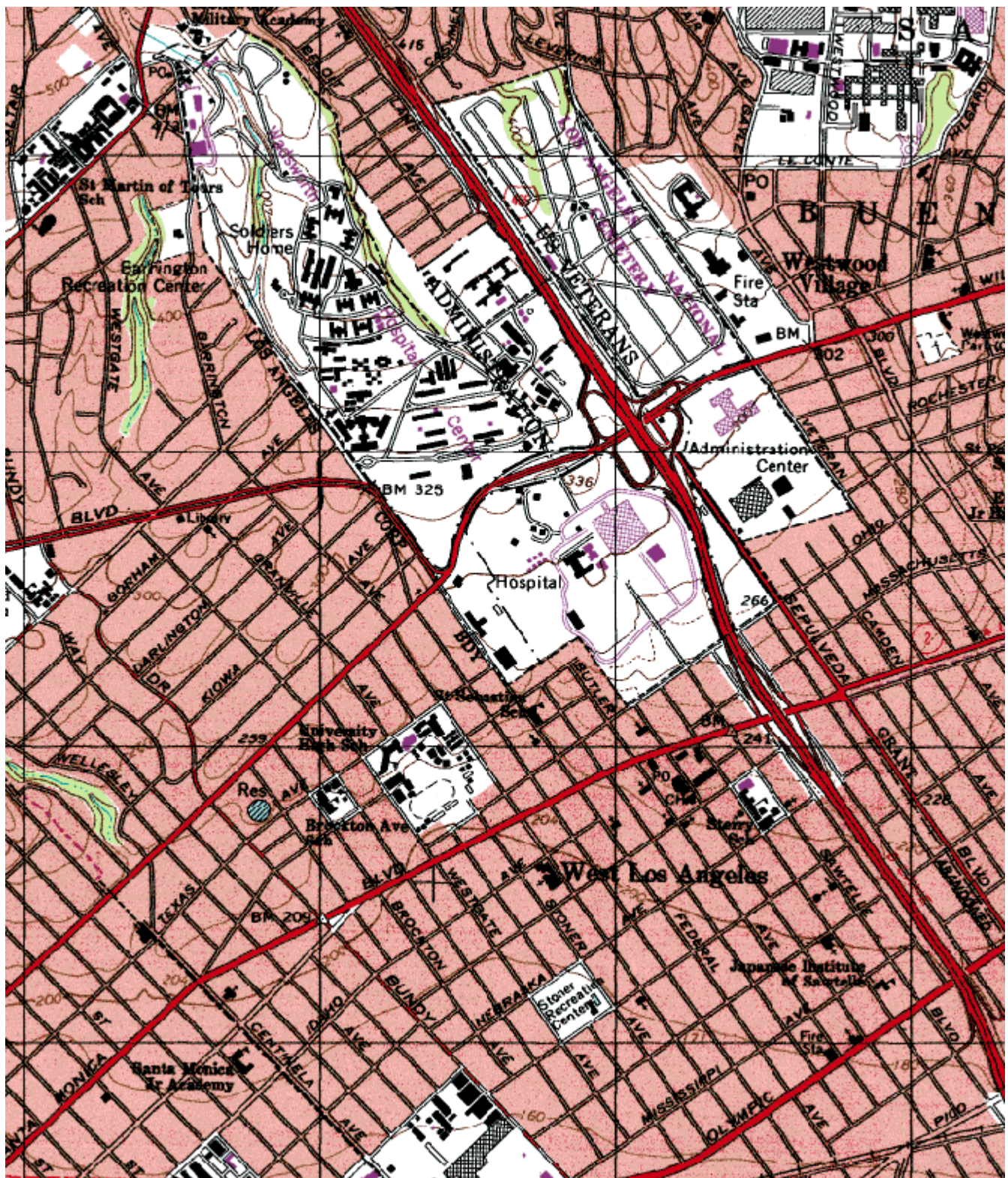
Quality Assurance
Site Survey Report for Los Angeles-VA Hospital

Last updated: May, 2019



AQS ID	ARB Number	Site Start Date	Reporting Agency and Agency Code
060370113	70091	05/1984	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
Wilshire Blvd & Sawtelle Blvd Los Angeles, CA 90025	Los Angeles	South Coast	34° 03' 03"N	118° 27' 23"W	92



Detailed Site Information

Local site name	Los Angeles-VA Hospital			
AQS ID	060370113			
GPS coordinates (decimal degrees)	Latitude: 34° 03' 03" Longitude: 118° 27' 22"			
Street Address	Wilshire Blvd & Sawtelle Blvd, Los Angeles, CA 90025			
County	Los Angeles			
Distance to roadways (meters)	15			
Traffic count (AADT, year)	1,000 / 2012			
Groundcover (e.g. asphalt, dirt, sand)	Dirt/Grass			
Representative statistical area name (i.e. MSA, CBSA, other)	31080-Los Angeles-Long Beach-Anaheim, MSA			
Pollutant, POC	Carbon Monoxide, 1	Nitrogen Dioxide, 1	Ozone, 1	
Primary / QA Collocated / Other	N/A	N/A	N/A	
Parameter code	42101	42602	44201	
Network affiliation	N/A	N/A	N/A	
Basic monitoring objective(s)	NAAQS	NAAQS	NAAQS	
Site type(s)	Population Exposure	Highest Concentration	Population Exposure	
Monitor (type)	SLAMS	SLAMS	SLAMS	
Network affiliation	N/A	N/A	N/A	
Instrument manufacturer and model	Horiba APMA 360	Thermo 42i	API/Teledyne 400E	
Method code	106	074	087	
FRM/FEM/ARM/ other	FRM	FRM	FEM	
Collecting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A	N/A	
Reporting Agency	South Coast AQMD	South Coast AQMD	South Coast AQMD	
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Middle	Neighborhood	
Monitoring start date (MM/DD/YYYY)	05/1984	05/1984	05/1984	
Current sampling frequency (e.g. 1:3, continuous)	1:1	1:1	1:1	
Calculated sampling frequency (e.g. 1:3/1:1)	N/A	N/A	N/A	
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	
Probe height (meters)	4.2	4.2	4.2	
Distance from supporting structure (meters)	1.7	1.7	1.7	

Distance from obstructions on roof (meters)	N/A	N/A	N/A	
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	
Distance from trees (meters)	23	23	23	
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	
Distance between collocated monitors (meters)	N/A	N/A	N/A	
Unrestricted airflow (degrees)	360°	360°	360°	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	Teflon	
Residence time for reactive gases (seconds)	8.8	15.2	9.6	
Will there be changes within the next 18 months? (Y/N)	No	No	No	
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A	N/A	
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	N/A	
Frequency of one-point QC check for gaseous instruments	Nightly	Nightly	Nightly	
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	06/29/2018	08/01/2018	06/29/2018	
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A	N/A	

Pollutant, POC	WS & D, 1/1	RH/T, 1/1		
Primary / QA Collocated / Other	N/A	N/A		
Parameter code	61101/61102	62201/62101		
Basic monitoring objective(s)	NAAQS	NAAQS		
Site type(s)	Meteorological	Meteorological		
Monitor (type)	SLAMS	SLAMS		
Network affiliation	N/A	N/A		
Instrument manufacturer and model	RM Young 05305	Rotronic HC2-S3		
Method code	065/065	061/061		
FRM/FEM/ARM/ other	N/A	N/A		
Collecting Agency	South Coast AQMD	South Coast AQMD		
Analytical Lab (i.e., weigh lab, toxics lab, other)	N/A	N/A		
Reporting Agency	South Coast AQMD	South Coast AQMD		
Spatial scale (e.g. micro, neighborhood)	Neighborhood/Middle	Neighborhood/Middle		
Monitoring start date (MM/DD/YYYY)	05/1984	05/1984		
Current sampling frequency (e.g.1:3, continuous)	Continuous	Continuous		
Calculated sampling frequency (e.g. 1:3/1:1)	1:1	1:1		
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31		
Probe height (meters)	10	9.0		
Distance from supporting structure (meters)	10	9.0		
Distance from obstructions on roof (meters)	N/A	N/A		
Distance from obstructions not on roof (meters)	N/A	N/A		
Distance from trees (meters)	23	23		
Distance to furnace or incinerator flue (meters)	N/A	N/A		
Distance between collocated monitors (meters)	N/A	N/A		

Unrestricted airflow (degrees)	360°	360°		
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A		
Residence time for reactive gases (seconds)	N/A	N/A		
Will there be changes within the next 18 months? (Y/N)	No	No		
Is it suitable for comparison against the annual PM2.5? (Y/N)	N/A	N/A		
Frequency of flow rate verification for manual PM samplers	N/A	N/A		
Frequency of flow rate verification for automated PM analyzers	N/A	N/A		
Frequency of one-point QC check for gaseous instruments	N/A	N/A		
Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY)	N/A	N/A		
Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY)	N/A	N/A		

APPENDIX C

PM_{2.5} Continuous Monitor Comparability Assessment and Request for Waiver

Introduction

The South Coast AQMD monitoring program has historically operated PM_{2.5} continuous monitors primarily to support forecasting and reporting of the Air Quality Index (AQI). These monitors supply data every hour to update the AQI on our website as well as national websites such as AirNow (www.airnow.gov). South Coast AQMD has been using these monitors since the early part of the last decade as the PM_{2.5} monitoring program was implemented. Over the last few years, a number of PM_{2.5} continuous monitors have been approved as FEM. By utilizing an approved FEM, any subsequent data produced from the method may be eligible for comparison to U.S. EPA's health based standard known as the NAAQS. The primary advantage of operating a PM_{2.5} continuous FEM is that it can support the AQI, while also supplying data that are eligible for comparison to the NAAQS. Thus, a network utilizing PM_{2.5} continuous FEMs can potentially lower the number of filter-based FRMs operated in the network, which are primarily used for comparison to the NAAQS. These filter-based FRMs are resource intensive in that they require field operations, pre-and post-sampling laboratory analysis, which results in data not being available for approximately 2-4 weeks after sample collection.

South Coast AQMD has been evaluating PM_{2.5} continuous FEMs over the past several years. Although PM_{2.5} continuous FEMs are automated methods, these methods still require careful attention in their set-up, operation, and validation of data. Once enough data was collected, South Coast AQMD began to evaluate the performance of these methods compared to collocated FRM data per 40 CFR §58.11(e). The evaluation is explained further below and includes our request regarding the use of the data from these methods.

Request for Exclusion of PM_{2.5} Continuous FEM Data from Comparison to the NAAQS

Evaluation requirements for requesting exclusion of data from comparison to the NAAQS are identified in 40 CFR §58.11(e). These requirements refer to the performance criteria described in Table C-4 to subpart C of part 53. To accommodate the differences in how routine monitoring agencies operate their networks, several additional provisions are described in §58.11(e). When a topic is not addressed in §58.11(e), then the test specifications from Table C-4 applies.

Evaluation of FRM/FEM data per §53 Table C-4 requires a slope of regression to be 1 ± 0.10 and an intercept of regression ± 2.0 to meet bias requirements. Table 1C shows, the slopes of the regression between collocated FRM and FEM measurements are lower than 1.1 and meets the test specification indicated in §53 Table C-4 (i.e. slope = 1 ± 0.1). Although the slope criteria was met, the intercept of the regression relationship between FRM and FEM data of ± 2.0 (also indicated in §53 Table C-4) failed for Los Angeles (Main St.) (2.65), Mira Loma (Van Buren) (2.71), Long Beach Route 710 Near Road (2.42), and Ontario Route 60 Near Road (2.56).

Additionally the correlation of reference value should be ≥ 0.95 for the R(y) vs FRM CCV (x) in order to meet the part 53 correlation criteria used in approving continuous PM_{2.5} FEMs, as per “Technical Note – PM 2.5 Continuous Monitor Comparability Assessment” (*Updated – May 18th, 2018*). Data at or above the dashed line ($r = 0.9$) meet the correlation criteria identified in guidance for reporting the AQI. While Rubidoux (POC 9) met the bias requirement, its correlation of reference does not meet the ≥ 0.95 test and should be excluded for comparison to the NAAQS.

Thus, in accordance with the PM NAAQS rule published on January 15, 2013 (78 FR 3086) and specific to the provisions detailed in §58.10 (b)(13) and §58.11 (e), South Coast AQMD is requesting that data from the Los Angeles (Main St.) (POC 9), Rubidoux (POC 9), Mira Loma (Van Buren), Long Beach Route 710 Near Road, and Ontario Route 60 Near Road FEM PM_{2.5} monitors be set aside for comparison to the NAAQS. While South Coast AQMD is working to optimize the monitoring instrumentation to meet all of our monitoring objectives, the performance is not yet at a point where the comparability of the PM_{2.5} continuous FEMs operated in our network compared to collocated FRMs is acceptable and should be submitted as 88502 in AQS.

Detailed one-page assessments from which the information was obtained and described in Table 1C below are included at the end of this section.

Request for Inclusion of PM_{2.5} Continuous FEM Data for Comparison to the NAAQS

PM_{2.5} FEM datasets for Anaheim and South Long Beach now pass bias and correlation requirements to be included in the NAAQS and should now be reclassified in AQS from 88502 in AQS to 88101.

Table 1C – Request for Exclusion of PM_{2.5} Continuous FEM Data

Site Name	City	Site ID	Cont. POC	Cont. Method Description	PM _{2.5} Cont. Begin Date	PM _{2.5} Cont. End Date	Continuous/ FRM Sampler Pairs Per Season	Slope (m)	Intercept (y)	Meets Bias Requirement	Correlation (r)
<i>Sites with PM_{2.5} continuous FEMs that are collocated with FRMs</i>											
Los Angeles (Main St.)	Los Angeles	06-037-1103	9	Met-One BAM 1020 w/VSCC *as 88502	01/01/2016	12/31/2018	Winter = 238 Spring = 264 Summer = 261 Fall = 269 Total = 1032	1.07	2.65	No	0.94
Riverside/ Rubidoux	Rubidoux	06-065-8001	9	Met-One BAM 1020 w/VSCC *as 88502	01/01/2016	12/31/2018	Winter = 246 Spring = 257 Summer = 262 Fall = 264 Total = 1029	1.02	1.09	Yes	0.94
Mira Loma (Van Buren)	Riverside	06-065-8005	3	Met-One BAM 1020 w/VSCC *as 88502	01/01/2016	12/31/2018	Winter = 231 Spring = 244 Summer = 260 Fall = 251 Total = 986	0.95	2.71	No	0.95
Long Beach Route 710 Near Road	Long Beach	06-037-4008	3	Thermo BAM 5014i w/ VSCC *as 88101	01/01/2016	12/31/2018	Winter = 222 Spring = 243 Summer = 257 Fall = 212 Total = 934	0.98	2.42	No	0.93
Ontario Route 60 Near Road	Ontario	06-071-0027	3	Thermo BAM 5014i w/ VSCC *as 88101	08/01/2016	12/31/2018	Winter = 255 Spring = 244 Summer = 231 Fall = 231 Total = 961	0.99	2.56	No	0.92

Table 2C – Request for Inclusion of PM_{2.5} Continuous FEM Data

Site Name	City	Site ID	Cont. POC	Cont. Method Description	PM _{2.5} Cont. Begin Date	PM _{2.5} Cont. End Date	Continuous/ FRM Sampler Pairs Per Season	Slope (m)	Intercept (y)	Meets Bias Requirement	Correlation (r)
<i>Sites with PM_{2.5} continuous FEMs that are collocated with FRMs</i>											
Anaheim	Anaheim	06-059-0007	3	Met-One BAM 1020 w/VSCC *as 88502	01/01/2016	12/31/2018	Winter = 230 Spring = 268 Summer = 265 Fall = 221 Total = 984	1.03	1.77	Yes	0.95
South Long Beach	Long Beach	06-037-4004	3	Met-One BAM 1020 w/VSCC *as 88502	01/03/2016	12/31/2018	Winter = 238 Spring = 242 Summer = 263 Fall = 244 Total = 987	1.07	1.73	Yes	0.96

Period of Exclusion of Data from the PM2.5 Continuous FEMs

The above Table 1C details the period of available data by monitor on which the request to exclude PM2.5 continuous FEM data is based. Per U.S. EPA Regional Office approval, these data will be entered into U.S. EPA’s AQS database in a manner where the data are only used for the appropriate monitoring objective(s) (i.e., use data for just the AQI). Additionally, South Coast AQMD will continue to load any new data generated for the next 18 months (intended to represent the period until December 31, 2020) in the same manner or until such time we request and receive approval from the U.S. EPA Regional Office to change the status of these monitors.

Period of Inclusion of Data from the PM2.5 Continuous FEMs

The above Table 2C details the period of available data by monitor on which the request to include PM2.5 continuous FEM data is based. This data will be entered into U.S. EPA’s AQS database in a manner where the data are used for the appropriate monitoring objective(s) (i.e., use data for NAAQS and the AQI). Additionally, South Coast AQMD will continue to load any new data generated for the next 18 months (intended to represent the period until December 31, 2020) in the same manner.

PM2.5 Continuous FEM data for Reporting the AQI

While the analysis supports the request for exclusion from comparison to the NAAQS, the data are of sufficient comparability to collocated FRMs that they be used for public AQI reporting. Therefore, with U.S. EPA Regional Office approval we will report these data on our website and to AirNow (www.airnow.gov). As such, data submitted to U.S. EPA’s AQS database will be under “acceptable AQI” reporting (i.e., parameter code 88101) so that data users will know that these data are appropriate for use in AQI calculations, but not for NAAQS comparison.

Assessments

The following one-page assessments are of locations where South Coast AQMD has collocated PM2.5 FRM and continuous FEM monitors. Each of these assessments is represented in the “Table 1C – Request for Exclusion of PM2.5 Continuous FEM Data” and “Table 2C – Request for Inclusion of PM2.5 Continuous FEM Data” above.

APPENDIX D

PAMS Monitoring Implementation Network Plan Monitoring Organizations Required to Operate at NCore Sites

South Coast AQMD operates 6 Photochemical Assessment Monitoring Stations (PAMS) sites in the current air monitoring network. PAMS sites are located at the LAX Hastings, Azusa, Los Angeles (Main St.), Pico Rivera, Rubidoux and Santa Clarita sites. Changes to the South Coast AQMD PAMS network will be implemented by June 1, 2019.

Network Locations

The NCore sites located at Los Angeles (Main St.) and Rubidoux, will serve as the required PAMS sites and will measure the following parameters described below. An Inventory of equipment used at the site(s) is provided as Attachment 1.

Auto GC

Volatile Organic Compounds (VOCs) – A complete list of the targeted compounds are found in Table 1. South Coast AQMD will measure hourly speciated VOC measurements with an auto-gas chromatograph (GC) using an Agilent/Markes model 7890A/Unity Air Server 2.

Meteorology Measurements

South Coast AQMD will measure wind direction, wind speed, temperature, humidity, atmospheric pressure, solar radiation, ultraviolet radiation, and mixing height. South Coast AQMD has elected to use the following instrumentation to measure the parameters described above: RM Young 5305VP anemometer, Rotronic HC2-S3 ambient temperature/humidity, Vaisala PTB 110 barometer, Kipp and Zonen CMP6 Pyranometer, Eppley TUVB Total Ultraviolet Radiometer, and Vaisala CL51 Ceilometers.

South Coast AQMD requests waivers to allow precipitation and mixing height measurements to be obtained/measured from nearby sites. Rationale for this request is provided in the waiver attachment.

Other Measurements

Carbonyls – South Coast AQMD will monitor Carbonyls at a frequency of three 8-hour samples on an one in-three day basis during the months of June, July and August (~90 samples per PAMS sampling season) using ATEC model 8000 Automated Sampler. A complete list of the target carbonyl compounds may be found in Table 1. The TO-11A test method, as used in the National Air Toxics Trends (NATTS) program will be used.

Nitrogen Oxides – South Coast AQMD will monitor for NO and NO_y (total oxides of nitrogen) in addition to true NO₂. The true NO₂ is measured with a direct reading NO₂ analyzer, cavity attenuated phase shift (CAPS) spectroscopy. South Coast AQMD has elected to use Teledyne CAPS T500U for the true NO₂ measurement. NO and NO_y will be measured using a Thermo 42i or Thermo 42i-Y.

Table 1 PAMS Target Compound List^a

Priority Compounds				Optional Compounds			
1	1,2,3-trimethylbenzene ^a	19	n-hexane ^b	1	1,3,5-trimethylbenzene	19	m-diethylbenzene
2	1,2,4-trimethylbenzene ^a	20	n-pentane	2	1-pentene	20	methylcyclohexane
3	1-butene	21	o-ethyltoluene ^a	3	2,2-dimethylbutane	21	methylcyclopentane
4	2,2,4-trimethylpentane ^b	22	o-xylene ^{a,b}	4	2,3,4-trimethylpentane	22	n-decane
5	Acetaldehyde ^{b,c}	23	p-ethyltoluene ^a	5	2,3-dimethylbutane	23	n-heptane
6	acetone ^{c,d}	24	Propane	6	2,3-dimethylpentane	24	n-nonane
7	benzene ^{a,b}	25	propylene	7	2,4-dimethylpentane	25	n-octane
8	c-2-butene	26	styrene ^{a,b}	8	2-methylheptane	26	n-propylbenzene ^a
9	ethane ^d	27	toluene ^{a,b}	9	2-methylhexane	27	n-undecane
10	ethylbenzene ^{a,b}	28	t-2-butene	10	2-methylpentane	28	p-diethylbenzene
11	Ethylene			11	3-methylheptane	29	t-2-pentene
12	formaldehyde ^{b,c}			12	3-methylhexane	30	α/β -pinene
13	Isobutane			13	3-methylpentane	31	1,3 butadiene ^b
14	Isopentane			14	Acetylene	32	benzaldehyde ^c
15	Isoprene			15	c-2-pentene	33	carbon tetrachloride ^b
16	m&p-xylenes ^{a,b}			16	cyclohexane	34	Ethanol
17	m-ethyltoluene ^a			17	cyclopentane	35	Tetrachloroethylene ^b
18	n-butane			18	isopropylbenzene ^b		

Source: Revisions to the Photochemical Assessment Monitoring Stations Compound Target List.U.S. EPA, November 20, 2013

^a Important SOAP (Secondary Organic Aerosols Precursor) Compounds

^b HAP (Hazardous Air Pollutant) Compounds

^c Carbonyl compounds

^d Non-reactive compounds, not considered to be VOC for regulatory purposes

Attachment 1

Waiver Requests and Rationale

Meteorological Waiver Request

South Coast AQMD requests waivers to allow upper air meteorological and precipitation measurements to be measured and obtained at sites other than Los Angeles (Main St.) and Rubidoux.

Rationale for Waiver

South Coast AQMD currently operates upper air meteorological monitoring equipment at Los Angeles International Airport (LAX), Ontario International Airport (ONT), Moreno Valley (MOV), Moreno Valley Municipal Water Treatment Plant in Riverside County, Irvine (IRV) University of California Research and Extension Center, and Pacoima at Whiteman Airport (WHP) as part of the PAMS program. Because the physical location of the NCore sites at Los Angeles (Main St.) and Rubidoux are less suitable for meteorological measurements due to physical surroundings, South Coast AQMD requests a waiver to continue monitoring upper air utilizing ceilometers at LAX and ONT.

Precipitation measurements are not currently measured at the Los Angeles (Main St.) and Rubidoux air monitoring sites due to physical surroundings at the monitoring locations and the presence of other suitable measurements nearby. South Coast AQMD requests a waiver to utilize nearby precipitation measurements from the precipitation network maintained by the National Weather Service and the Federal Aviation Administration, including sites at Downtown Los Angeles (USC) and Riverside Municipal Airport (RAL).

Attachment 2

Equipment Inventory

Region	9
State	California
AQS ID	06-037-1103, Los Angeles (Main St.)
CBSA	31080 – Los Angeles-Long Beach-Anaheim

Parameter	Category	Detail
Site	Is the AQS site ID listed above the expected PAMS Core site location?	Yes
	What is the status of the decision for the expected PAMS Core site location (not started, draft, or final)?	Final
	Is there an alternate PAMS Core site location selected?	No
	Identify type of alternative site (existing PAMS, NATTS, etc.)	None
	Alternate site AQS ID (if known)	None
Mixing Height	Is there an existing functional ceilometer or other similar instrument available for use?	No, waiver requested for alternate location at LAX
	Current location (at future PAMS Core site, at other site, not applicable)	At LAX location.
	Instrument type (ceilometer, radar profiler, etc.)	Ceilometer, radar wind profiler
	Manufacturer	Vaisala
	Model	CL51
	Date purchased	4/2016
	Comments	LAX site ceilometer includes mixing height algorithm.
Auto GC	Is there an existing Auto GC available for use?	Yes
	Current location (at future PAMS Core site, at other site, not applicable)	At PAMS Core site
	Manufacturer	Agilent/Marques
	Model	7890A/Unity Air Server 2
	Date purchased	07/2015
	Does it have a service contract?	GC under warranty – establishing service contract.
	Comments	
True NO2	Is there an existing true NO2 instrument available for use?	In process of being purchased.
	Current location (at future PAMS Core site, at other site, not applicable)	To be installed at PAMS Core
	Instrument type (photolytic conversion, cavity ring down, CAPS, etc.)	CAPS
	Manufacturer	Teledyne
	Model	T500U
	Date purchased	In process
	Comments	
Carbonyls Sampling	Is there an existing sequential carbonyls sampling unit or similar instrument available for use?	Yes
	Current location (at future PAMS Core site, at other site, not applicable)	At Core PAMS site
	Manufacturer	ATEC
	Model	8000
	Date purchased	2017
	Comments	
Carbonyls Analysis	Does the site currently have a support laboratory for carbonyls or plans to use a support laboratory?	Samples to be analyzed at South Coast AQMD
	laboratory name	N/A
	comments	

Barometric Pressure	Instrument type (aneroid barometer, etc.)	Barometer, Electronic
	Manufacturer	Vaisala
	Model	PTB110
	Date purchased	9/27/13
	Comments	Equivalent sensor also at LAX Upper Air Station
UV Radiation	Instrument type (UV radiometer, etc.)	Total Ultraviolet Radiation
	Manufacturer	Eppley
	Model	TUVR
	Date purchased	3/6/08
	Comments	Equivalent sensor also at LAX Upper Air Station
Solar Radiation	Instrument type (Pyranometer, etc.)	Pyranometer
	Manufacturer	Kipp and Zonen
	Model	CMP6
	Date purchased	3/6/08
	Comments	Equivalent sensor also at LAX Upper Air Station
Precipitation	Instrument type (tipping bucket, weighing, etc.)	Electronic Gauge - Weighing
	Manufacturer	
	Model	
	Date purchased	
	Comments	NWS/FAA precipitation nearby at Downtown LA (USC)

Region	9
State	California
AQS ID	06-065-8001, Rubidoux
CBSA	40140 - Riverside-San Bernardino-Ontario

Parameter	Category	Detail
Site	Is the AQS site ID listed above the expected PAMS Core site location?	Yes
	What is the status of the decision for the expected PAMS Core site location (not started, draft, or final)?	Final
	Is there an alternate PAMS Core site location selected?	No
	Identify type of alternative site (existing PAMS, NATTS, etc.)	None
	Alternate site AQS ID (if known)	None
Mixing Height	Is there an existing functional ceilometer or other similar instrument available for use?	No, waiver requested for alternate location at ONT
	Current location (at future PAMS Core site, at other site, not applicable)	At ONT location.
	Instrument type (ceilometer, radar profiler, etc.)	Ceilometer, Radar Wind Profiler.
	Manufacturer	Vaisala
	Model	CL51
	Date purchased	1/2018
	Comments	ONT ceilometer includes mixing height algorithm.
Auto GC	Is there an existing Auto GC available for use?	Yes
	Current location (at future PAMS Core site, at other site, not applicable)	At PAMS Core site
	Manufacturer	Agilent/Marques
	Model	7890A/Unity Air Server 2
	Date purchased	04/2016
	Does it have a service contract?	GC under warranty – establishing service contract.
	Comments	
True NO2	Is there an existing true NO2 instrument available for use?	In process of being purchased.

	Current location (at future PAMS Core site, at other site, not applicable)	To be installed at PAMS Core
	Instrument type (photolytic conversion, cavity ring down, CAPS, etc.)	CAPS
	Manufacturer	Teledyne
	Model	T500U
	Date purchased	In process
	Comments	
Carbonyls Sampling	Is there an existing sequential carbonyls sampling unit or similar instrument available for use?	Yes
	Current location (at future PAMS Core site, at other site, not applicable)	At Core PAMS site
	Manufacturer	ATEC
	Model	8000
	Date purchased	2017
	Comments	
Carbonyls Analysis	Does the site currently have a support laboratory for carbonyls or plans to use a support laboratory?	Samples to be analyzed at South Coast AQMD
	Laboratory name	N/A
	Comments	
Barometric Pressure	Instrument type (aneroid barometer, etc.)	Barometer, Electronic
	Manufacturer	Vaisala
	Model	PTB110
	Date purchased	9/27/13
	Comments	Equivalent sensor also at ONT Upper Air Station
UV Radiation	Instrument type (UV radiometer, etc.)	Total Ultraviolet Radiation
	Manufacturer	Eppley
	Model	TUVR
	Date purchased	3/6/08
	Comments	Equivalent sensor also at ONT Upper Air Station
Solar Radiation	Instrument type (Pyranometer, etc.)	Pyranometer
	Manufacturer	Kipp and Zonen
	Model	CMP6
	Date purchased	3/6/08
	Comments	Equivalent sensor also at ONT Upper Air Station
Precipitation	Instrument type (tipping bucket, weighing, etc.)	Electronic Gauge - Weighing
	Manufacturer	
	Model	
	Date purchased	
	Comments	NWS/FAA precipitation nearby at ONT airport site